





FROM THE CHAIRMAN AND CEO

Fellow unitholders,

Throughout 2018, MPLX achieved a variety of milestones that not only met our strategic objectives for the year, but went well beyond. We expanded our business through new projects, enhanced the stability of our cash flow and simplified our financial structure. At the same time, we achieved the largest increase in annual EBITDA since becoming a public company. Our 2018 adjusted EBITDA of nearly \$3.5 billion represented an increase of approximately \$1.5 billion over 2017, with almost \$400 million of this increase from organic investments.

The magnitude of our annual organic growth highlights our commercial and operational acumen. Our careful focus on strategic projects has allowed us to effectively deploy capital to develop and execute industry solutions where we operate.

In our Logistics and Storage segment, we acquired a strategically located export terminal, expanded our Ozark and Wood River pipeline systems, added tankage at Texas City, Texas, and Patoka, Illinois, and increased the size of our marine fleet. In our Gathering and Processing segment, we added 11 new plants that expanded our natural gas processing capacity by almost 1.5 billion cubic feet per day and our fractionation capacity by 100,000 barrels per day.

As you'll see in this report, we also delivered on our commitment to enhance the financial strength of our partnership by generating strong distributable cash flow and funding our organic growth without issuing any public equity. We returned nearly \$2.1 billion to unitholders while increasing our coverage ratio and maintaining a strong balance sheet.

As we look ahead, our focus will continue to be on increasing our presence throughout the midstream value chain and developing strategic assets that generate third-party revenue. As we have in the past, we expect to continue to invest in growth projects that deliver attractive returns, positioning us for long-term unitholder value.

On behalf of the Board of Directors, I thank you for your investment and look forward to growing the partnership together.

Sincerely,

Gary R. Heminger

Chairman and Chief Executive Officer



STRATEGIC VISION

CAPTURE FULL MIDSTREAM VALUE CHAIN

We are focused on developing infrastructure to support growth across the hydrocarbon value chain, including gathering, processing and fractionation assets, as well as inbound and outbound logistics infrastructure, such as long-haul pipelines and export facilities. Our business strategy and investments are focused on connecting growing domestic supply to global demand centers.

ENHANCE CASH-FLOW STABILITY

Fee-based services and long-term contracts provide our company through-cycle cash-flow stability. Our strategic relationship with Marathon Petroleum Corporation (MPC), and increased focus on third-party business, fosters growth opportunities as well as a base of stable cash flows. Planned investments in long-haul pipelines and export facilities are expected to provide additional stability to our cash-flow profile.

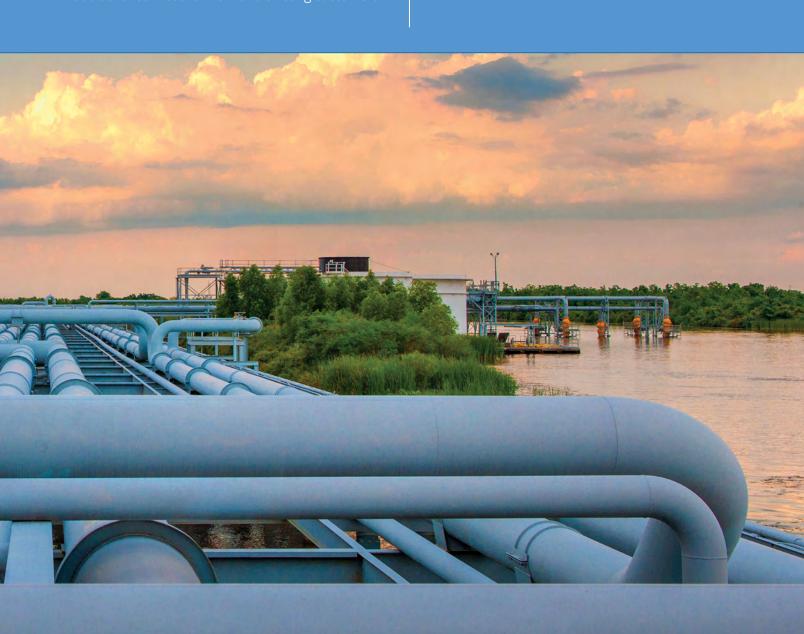


GROW IN PREMIER BASINS

Our assets are located in some of the premier production areas of the U.S., including the Marcellus and Permian basins. We intend to increase operating cash flow by capitalizing on organic investment opportunities that arise in our areas of operations and increasing the utilization of our existing facilities by providing additional services for new and existing customers.

MAINTAIN FINANCIAL DISCIPLINE

We high-grade our portfolio of investment opportunities to ensure efficient deployment of capital. We are committed to maintaining an investment grade credit profile and plan to finance our organic growth capital without issuing any equity.



LOGISTICS AND STORAGE

Our Logistics and Storage segment, which generates stable cash flows with its fee-based revenues, reported segment income from operations of \$1.7 billion and adjusted EBITDA of \$2.1 billion in 2018. Adjusted EBITDA increased by \$1.3 billion compared to the prior year. The increase was primarily due to the acquisition of refining logistics assets and fuels distribution services from MPC, as well as record crude oil and product pipeline throughputs.

During the year, we continued executing on our long-term strategy of expanding crude oil and refined products infrastructure. We purchased an eastern Gulf Coast export terminal in Mt. Airy, Louisiana, and also completed the expansion of the Ozark and Wood River-to-Patoka pipeline systems, which connect Cushing, Oklahoma, to Patoka, Illinois. Lastly, we increased the size of our marine fleet, placed a new butane cavern in service and added strategic tankage in Texas City, Texas, and Patoka.

There are numerous growth projects planned for 2019, as we continue to identify opportunities to capture value across the midstream value chain, with a focus on long-haul pipelines that add stable cash flows and export facilities that meet growing global market needs. We have announced planned investments in crude oil, natural gas and natural gas liquids pipelines originating in the Permian basin. These pipelines are expected to connect growing supply in this basin to global demand centers. We plan to develop and expand our export capabilities at multiple locations along the Gulf Coast, including the recently acquired Mt. Airy terminal.



GATHERING AND PROCESSING

Our Gathering and Processing segment delivered strong results in 2018, with segment income from operations of \$767 million. Adjusted EBITDA was \$1.4 billion for the year, representing an increase of 15 percent versus the prior year. The significant year-over-year increase was driven by record gathered, processed and fractionated volumes.

Throughout the year, we continued to execute on our organic growth program by commissioning eight processing plants and three fractionation facilities. In total, we increased our processing capacity by nearly 20 percent, to over 9.3 billion cubic feet per day, while also adding 100,000 barrels per day of fractionation capacity.

Consistent with our strategy of constructing plants on a just-in-time basis, we expect to complete two additional plants at our Sherwood Complex in the Marcellus basin in 2019. The addition of these plants will increase our processing capacity in the Marcellus and Utica basins to over 7.4 billion cubic feet per day, further strengthening our position as the largest processor in the Northeast.

In the Delaware basin, we are focused on developing a super-system very similar to what we have in the Northeast. We are currently operating two processing plants and have three additional plants under various stages of development. Upon completion, we will have approximately 1 billion cubic feet per day of processing capacity, leading to significant liquids production in this basin.







FINANCIAL AND OPERATIONAL HIGHLIGHTS

FINANCIAL HIGHLIGHTS

	2016	2017	2018		
Net income attributable to MPLX (\$mm)	\$ 233	\$ 794	\$ 1,818		
Adjusted EBITDA attributable to MPLX (\$mm)	1,419	2,004	3,475		
Net cash provided by operating activities (\$mm)	1,491	1,907	2,826		
Distributable cash flow (DCF) (\$mm)	1,140	1,628	2,781		
Distribution per common unit (rounded to nearest \$0.01)	2.05	2.30	2.53		
Distribution coverage ratio	1.23x	1.28x	1.36x		
Growth capital expenditures (\$mm)	1,292	1,518	1,998		

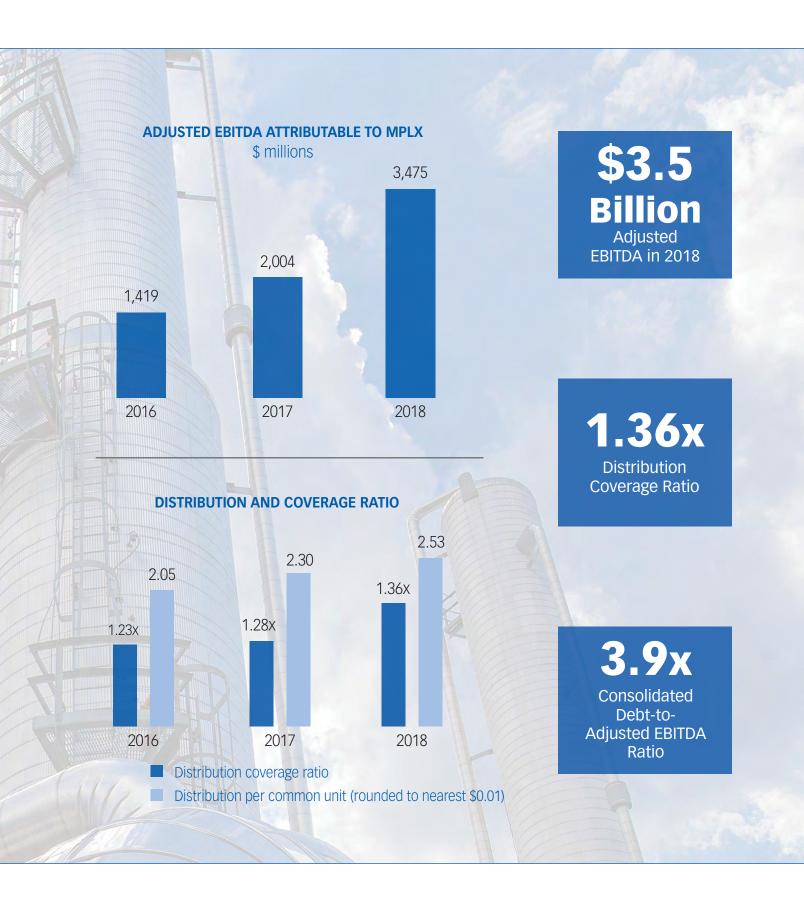


82%

MPLX Total Return Since IPO S&P 500: 102% Peers: 31% (1)

\$2.8
Billion
Distributable
Cash Flow in 2018

⁽¹⁾ Peer group includes: Andeavor Logistics LP, Buckeye Partners, L.P., Enterprise Product Partners L.P., Magellan Midstream Partners, L.P., Phillips 66 Partners LP and Plains All American Pipeline LP.



BOARD OF DIRECTORS



Standing, left to right

Donald C. Templin

President, Refining, Marketing and Supply, MPC. Mr. Templin was appointed senior vice president and chief financial officer of MPC in 2011 and vice president and chief financial officer of MPLX GP IIC in 2012. He was named executive vice president of MPC and president of MPLX in 2016 He was named president of MPC in 2017, and assumed his current role in 2018. Prior to joining MPC in 2011, Mr. Templin was managing partner of PricewaterhouseCoopers LLP's audit practice in Georgia, Alahama and Tennessee.

John P. Surma

Retired Chairman and CEO, United States Steel Corp. Prior to USS, Mr. Surma held various leadership positions at Marathon Oil Co.. including senior vice president of Finance and Accounting president of Speedway SuperAmerica LLC, and president of Marathon Ashland Petroleum LLC.

Christopher A. Helms

President and CEO, U.S. Shale Management Co. Mr. Helms previously served in various leadership positions at NiSource Inc. and NiSource Gas Transmission and Storage. Mr. Helms was responsible for leading the company's interstate gas transmission, storage and midstream businesses.

Garry L. Peiffer

Retired President, MPLX GP LLC, and retired Executive Vice President. Corporate Planning and Investor and Government Relations, MPC. Mr. Peiffer ioined Marathon Oil Co in 1974 and held various leadership positions with the company. He was named executive vice president of MPC in 2011, and president of MPLX

Frank M. Semple

Retired Chairman, President and CEO, MarkWest Energy Partners, L.P. Mr. Semple joined MarkWest in 2003 as president and CEO, and was elected chairman in 2008. He completed a 22-year career with The Williams Cos. and WilTel Communications prior to MarkWest.

J. Michael Stice

Dean, Mewbourne College of Earth & Energy, The University of Oklahoma. He is a former director of MarkWest Energy Partners, L.P. Mr. Stice's career includes leadership roles with Conoco and ConocoPhillips. He also was chief executive officer and a director of Chesapeake Midstream Partners. L.P., later called Access Midstream Partners G.P., LLC

Seated, left to right

Michael L. Beatty

Former Chairman. Beatty & Wozniak, P.C. Mr. Beatty was a director of MarkWest Hydrocarbon and was named a director of MarkWest Energy Partners, L.P. in 2008. Prior to these positions, he was executive vice president, general counsel and director of the Coastal Corp., and chief of staff to Colorado Gov. Roy Romer.

Timothy T. Griffith

Senior Vice President and Chief Financial Officer, MPC, Prior to MPC, Mr. Griffith was vice president and treasurer of Smurfit-Stone Container Corp., vice president and treasurer of Cooper-Standard Automotive and assistant treasurer of Lear Corp. He also held positions at Comerica Inc. and Citicorp Securities.

Michael J. Hennigan

President, MPLX GP LLC. Prior to joining MPLX GP LLC in 2017, Mr. Hennigan was president, crude, NGL and refined products of the general partner of **Energy Transfer Partners** L.P. Prior to that, he served as president and chief executive officer of Sunoco Logistics Partners L.P. He was responsible for all operations and business activities. including setting the direction, strategy and vision for the company.

Dan D. Sandman

in 2012

Adjunct professor, The Ohio State University Moritz College of Law. Mr. Sandman began his career at Marathon Oil Co. in 1973 and served in various positions as an attorney before being appointed general counsel and secretary in 1986. In 1993, he was named general counsel and secretary of USX Corp. and in 2002, he was named vice chairman of the board and chief legal and administrative officer of United States Steel Corp. retiring in 2007.

Gary R. Heminger

Chairman and CFO. MPLX GP LLC, Chairman and CFO, MPC, and Chairman and CEO of the general partner of Andeavor Logistics LP. Mr. Heminger joined Marathon Oil Co. in 1975 and held various leadership positions, including head of Marathon's downstream operations beginning in 2001. Mr. Heminger was named president and CEO of Marathon Petroleum Corp. in 2011 and chairman in 2016.

Gregory J. Goff

Executive Vice Chairman, MPC Mr. Goff previously served as chairman, president and chief executive officer of Andeavor and chairman and chief executive officer of the general partner of Andeavor Logistics LP. He completed a 29-year career with ConocoPhillips where he held several senior leadership positions.

Pamela K.M. Beall

Executive Vice President and Chief Financial Officer MPLX GP LLC. Ms. Beall began her career with Marathon Oil Co. and transferred to USX Corporation. After rejoining Marathon in 2002, she held various leadership positions, most recently executive vice president, Corporate Planning and Strategy, MPLX GP LLC.

COMPANY OFFICERS



Standing, left to right

Timothy J. Aydt

Vice President Business Development

Molly R. Benson

Vice President, Chief Securities, Governance and Compliance Officer and Corporate Secretary

C. Kristopher Hagedorn

Vice President and Controller

Rick D. Hessling

Senior Vice President

Brian K. Partee

Senior Vice President

David L. Whikehart

Senior Vice President

Peter Gilgen

Vice President and Treasurer

Kristina A. Kazarian

Vice President Investor Relations

Seated, left to right

Suzanne Gagle

General Counsel

John S. Swearingen

Executive Vice President Logistics and Storage

Michael J. Hennigan

President

Gary R. Heminger

Chairman and Chief Executive Officer

Pamela K.M. Beall

Executive Vice President and Chief Financial Officer

Gregory S. Floerke

Executive Vice President Gathering and Processing

Raymond L. Brooks

Senior Vice President

Not pictured

Shawn M. Lyon

Vice President Operations

RECONCILIATION DATA

Reconciliation of adjusted EBITDA attributable to MPLX LP, and DCF attributable to GP and LP unitholders from net income (unaudited)

		Year Ended Dec. 31	
(In millions)	2016	2017	2018
Net income	\$ 434	\$ 836	\$ 1,834
Depreciation and amortization	591	683	766
Provision (benefit) for income taxes	(12)	1	8
Amortization of deferred financing costs	46	53	59
Loss on extinguishment of debt	-	-	46
Non-cash equity-based compensation	10	15	19
Impairment expense	130	-	-
Net interest and other financial costs	215	301	556
(Income) loss from equity method investments (1)	74	(78)	(240)
Distributions/adjustments related to equity method investments	150	231	447
Unrealized derivative losses (gains) (2)	36	6	(5)
Acquisition costs	(1)	11	3
djusted EBITDA	1,673	2,059	3,493
Adjusted EBITDA attributable to non-controlling interests	(3)	(8)	(18)
Adjusted EBITDA attributable to Predecessor (3)	(251)	(47)	-
djusted EBITDA attributable to MPLX LP	1,419	2,004	3,475
Deferred revenue impacts	16	33	32
Net interest and other financial costs	(215)	(301)	(556)
Maintenance capital expenditures	(84)	(103)	(146)
Equity method investment capital expenditures paid out	(3)	(13)	(31)
Other	(1)	6	7
Portion of DCF adjustments attributable to Predecessor (3)	8	2	-
CF attributable to MPLX LP	1,140	1,628	2,781
Preferred unit distributions	(41)	(65)	(75)
CF attributable to GP and LP unitholders	\$ 1,099	\$ 1,563	\$ 2,706

- (1) Includes an impairment expense of \$89 million related to one of the partnership's equity method investments for the year ended Dec. 31, 2016.
- (2) MPLX makes a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.
- (3) The adjusted EBITDA and DCF adjustments related to Predecessor are excluded from adjusted EBITDA attributable to MPLX LP and DCF prior to the acquisition dates.

Reconciliation of adjusted EBITDA attributable to MPLX LP, and DCF attributable to GP and LP unitholders from net cash provided by operating activities (unaudited)

	Year Ended Dec. 31		
(In millions)	2016	2017	2018
Net cash provided by operating activities	\$ 1,491	\$ 1,907	\$ 2,826
Changes in working capital items	(76)	(147)	41
All other, net	(16)	(28)	(45)
Non-cash equity-based compensation	10	15	19
Net gain on disposal of assets	1	_	(2)
Loss on extinguishment of debt	_	_	46
Current income taxes	5	2	_
Net interest and other financial costs	215	301	556
Asset retirement expenditures	6	2	7
Unrealized derivative losses (gains) (1)	36	6	(5)
Acquisition costs	(1)	11	3
Other adjustments to equity method investment distributions	2	(10)	47
Adjusted EBITDA	1,673	2,059	3,493
Adjusted EBITDA attributable to non-controlling interests	(3)	(8)	(18)
Adjusted EBITDA attributable to Predecessor (2)	(251)	(47)	-
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DCF attributable to GP and LP unitholders	\$ 1,099	\$ 1,563	\$ 2,706

- (1) MPLX makes a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.
- (2) The adjusted EBITDA and DCF adjustments related to Predecessor are excluded from adjusted EBITDA attributable to MPLX LP and DCF prior to the acquisition dates.

RECONCILIATION DATA

Reconciliation of Capital Expenditures (unaudited)

		Year Ended Dec. 3	1
(In millions)	2016	2017	2018
Capital expenditures (1)			
Maintenance	\$ 84	\$ 103	\$ 146
Growth	1,213	1,381	1,884
Total capital expenditures	1,297	1,484	2,030
Less: Increase (decrease) in capital accruals	(22)	71	104
Asset retirement expenditures	6	2	7
Additions to property, plant and equipment	1,313	1,411	1,919
Capital expenditures of unconsolidated subsidiaries (2)	131	384	421
Total gross capital expenditures	1,444	1,795	2,340
Less: Joint venture partner contributions	64	169	196
Total capital expenditures, net	1,380	1,626	2,144
Acquisitions	-	249	451
Total capital expenditures, net and acquisitions	1,380	1,875	2,595
Less: Maintenance capital	88	108	146
Acquistions	-	249	451
Total growth capital expenditures	\$ 1,292	\$ 1,518	\$ 1,998

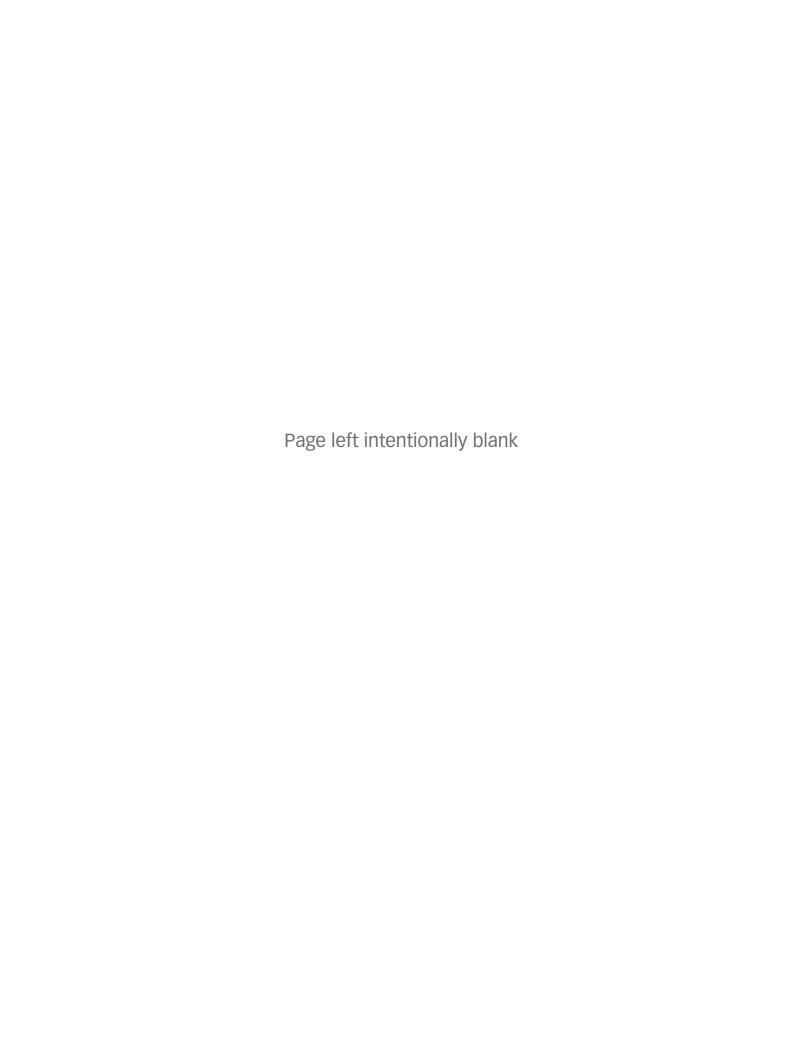
- (1) Includes capital expenditures of the Predecessor for all periods presented.
- (2) Capital expenditures includes amounts related to unconsolidated, partnership operated subsidiaries.

Reconciliation of Net Income to last 12 months pro forma adjusted EBITDA (unaudited)

	Year Ended Dec. 31			
(In millions)	2016	2017	2018	
Net income	\$ 434	\$ 836	\$ 1,834	
Net income to adjusted EBITDA adjustments	985	1,168	1,641	
Adjusted EBITDA attribuatble to MPLX LP	1,419	2,004	3,475	
Pro forma adjustments for acquisitions	30	146	92	
LTM Pro forma adjusted EBITDA	1,449	2,150	3,567	
Consolidated debt	4,858	7,748	13,856	
Consolidated debt to adjusted EBITDA	3.4x	3.6x	3.9x	

MPLX rail yards in Hopedale, Ohio





UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

Form 10-K

⋈ ANNUAL	REPORT	PURSUANT TO	SECTION 1	3 OR	15(d) OF	THE SE	ECURITIES
		EXCHAN	IGE ACT OF	1934			

For the fiscal year ended December 31, 2018 $\overline{\ }$ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES **EXCHANGE ACT OF 1934** For the transition period from Commission file number 001-35714 (Exact name of registrant as specified in its charter) **Delaware** (State or other jurisdiction of (I.R.S. Employer incorporation or organization) **Identification No.)** 200 E. Hardin Street, Findlay, Ohio 45840 (Address of principal executive offices) (419) 421-2414 (Registrant's telephone number, including area code) Securities registered pursuant to Section 12(b) of the Act: Title of each class Name of each exchange on which registered Common Units Representing Limited Partnership Interests New York Stock Exchange Securities registered pursuant to Section 12(g) of the Act: None Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ⊠ No □ Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No 🖂 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. 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). Yes X No Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K. 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. (Check one): Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting 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 Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ⊠

MPLX LP had 794,158,848 common units outstanding at February 15, 2019.

of its affiliates to be affiliates.

DOCUMENTS INCORPORATED BY REFERENCE:

The aggregate market value of common units held by non-affiliates as of June 30, 2018 was approximately \$9.8 billion. This amount is based on the closing price of the registrant's common units on the New York Stock Exchange on June 29, 2018. Common units held by executive officers and directors of the registrant and its affiliates are not included in the computation. The registrant, solely for the purpose of this required presentation, has deemed its directors and executive officers and those

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Unless the context otherwise requires, references in this report to "MPLX LP," "MPLX," "the Partnership," "we," "our," "us," or like terms refer to MPLX LP and its subsidiaries. Additionally, throughout this Annual Report on Form 10-K, we have used terms in our discussion of the business and operating results that have been defined in our Glossary of Terms.

Glossary of Terms

The abbreviations, acronyms and industry terminology used in this report are defined as follows:

ARO Asset retirement obligation
ASC Accounting Standards Codification
ASU Accounting Standards Update

ATM Program

An at-the-market program for the issuance of common units

Barrel

One stock tank barrel, or 42 United States gallons of liquid

volume, used in reference to crude oil or other liquid

hydrocarbons.

Bbl Barrels

Bcf/d One billion cubic feet per day

Btu One British thermal unit, an energy measurement

Class A Reorganization On September 1, 2016, a series of reorganization transactions

were initiated in order to simplify our ownership structure and its

financial and tax reporting requirements, resulting in the

elimination of all previously issued and outstanding MPLX LP

Class A units

Condensate A natural gas liquid with a low vapor pressure mainly composed

of propane, butane, pentane and heavier hydrocarbon fractions

DCF (a non-GAAP financial measure)

Distributable Cash Flow

DOT United States Department of Transportation

Dth/d Dekatherms per day

EBITDA (a non-GAAP financial measure) Earnings Before Interest, Taxes, Depreciation and Amortization

EIA United States Energy Information Administration
EPA United States Environmental Protection Agency
EAGR

FASB Financial Accounting Standards Board FERC Federal Energy Regulatory Commission

GAAP Accounting principles generally accepted in the United States of

America

Gal Gallon
Gal/d Gallons per day

LIBOR

MarkWest Merger

IDR Incentive Distribution Right

Initial Offering Initial public offering on October 31, 2012

IRS Internal Revenue Service

Joint-Interest Acquisition On September 1, 2017, MPLX acquired certain ownership interests in joint venture entities indirectly held by MPC,

collectively:

• Illinois Extension Pipeline Company, L.L.C. ("Illinois Extension")

• LOOP LLC ("LOOP")

• LOCAP LLC ("LOCAP")

• Explorer Pipeline Company ("Explorer")

London Interbank Offered Rate

On December 4, 2015, a wholly-owned subsidiary of MPLX merged with MarkWest Energy Partners, L.P. ("MarkWest")

mbbls Thousands of barrels
mbpd Thousand barrels per day
mcf One thousand cubic feet

MMBtu One million British thermal units, an energy measurement

MMcf/d One million cubic feet per day

Net operating margin (a non-GAAP financial Segment revenues, less purchased product costs, less derivative

measure) gains (losses) related to purchased product costs

NGL Natural gas liquids, such as ethane, propane, butanes and natural

gasoline

NYSE New York Stock Exchange

OTC

Partnership Agreement

PHMSA PPI Predecessor

Realized derivative gains/losses

SEC SMR

Unrealized derivative gains/losses

USCG VIE WTI Over-the-Counter

Fourth Amended and Restated Agreement of Limited Partnership of MPLX LP, dated as of February 1, 2018

Pipeline and Hazardous Materials Safety Administration Producer Price Index

Collectively:

- The related assets, liabilities and results of operations of Hardin Street Marine LLC ("HSM") prior to the date of the acquisition, March 31, 2016, effective January 1, 2015
- The related assets, liabilities and results of operations of Hardin Street Transportation LLC ("HST"), Woodhaven Cavern LLC ("WHC") and MPLX Terminals LLC ("MPLXT") prior to the date of the acquisition, March 1, 2017, effective January 1, 2015 for HST and WHC and April 1, 2016 for MPLXT

The gain or loss recognized when a derivative matures or is settled United States Securities and Exchange Commission
Steam methane reformer, operated by a third party and located at the Javelina gas processing and fractionation complex in Corpus Christi, Texas

The gain or loss recognized on a derivative due to changes in fair value prior to the instrument maturing or settling United States Coast Guard

Variable interest entity
West Texas Intermediate

Disclosures Regarding Forward-Looking Statements

This Annual Report on Form 10-K, particularly Item 1. Business, Item 1A. Risk Factors, Item 3. Legal Proceedings, Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 7A. Quantitative and Qualitative Disclosures about Market Risk, includes forward-looking statements. You can identify our forward-looking statements by words such as "anticipate," "believe," "could," "design," "estimate," "expect," "forecast," "goal," "guidance," "imply," "intend," "may," "objective," "opportunity," "outlook," "plan," "position," "potential," "predict," "project," "prospective," "pursue," "seek," "should," "strategy," "target," "will," "would" or other similar expressions that convey the uncertainty of future events or outcomes. In accordance with "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, these statements are accompanied by cautionary language identifying important factors, though not necessarily all such factors, that could cause future outcomes to differ materially from those set forth in the forward-looking statements.

Forward-looking statements include, but are not limited to, statements that relate to, or statements that are subject to risks, contingencies or uncertainties that relate to:

- the potential merger, consolidation or combination of MPLX with ANDX;
- future levels of revenues and other income, income from operations, net income attributable to MPLX LP, earnings per unit, Adjusted EBITDA or DCF (please read Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Information for the definitions of Adjusted EBITDA and DCF);
- the regional, national and worldwide availability and pricing of refined products, crude oil, natural gas, NGLs and other feedstocks;
- consumer demand for refined products;
- our ability to manage disruptions in credit markets or changes to our credit rating;
- anticipated levels of drilling activity, production rates and volumes of throughput of crude oil, natural gas, NGLs, refined products or other hydrocarbon-based products;
- future levels of capital, environmental or maintenance expenditures, general and administrative and other expenses;
- the success or timing of completion of ongoing or anticipated capital or maintenance projects;
- the reliability of processing units and other equipment;
- expectations regarding joint venture arrangements and other acquisitions, including the dropdowns completed by Marathon Petroleum Corporation ("MPC"), or divestitures of assets;
- business strategies, growth opportunities and expected investment;
- the adequacy of our capital resources and liquidity, including but not limited to, availability of sufficient cash flow to execute our business plan and to pay distributions;
- the effect of restructuring or reorganization of business components;
- the potential effects of judicial or other proceedings on our business, financial condition, results of operations and cash flows;
- the potential effects of changes in tariff rates on our business, financial condition, results of operations and cash flows;
- continued or further volatility in and/or degradation of general economic, market, industry or business conditions:
- compliance with federal and state environmental, economic, health and safety, energy and other policies and regulations;

- our ability to successfully implement our business plans, growth strategy and self-funding model;
- capital market conditions, including the cost of capital, and our ability to raise adequate capital to execute our business plan and implement our growth strategy; and
- the anticipated effects of actions of third parties such as competitors; or federal, foreign, state or local regulatory authorities; or plaintiffs in litigation.

Our forward-looking statements are not guarantees of future performance and you should not rely unduly on them, as they involve risks, uncertainties and assumptions that we cannot predict. Material differences between actual results and any future performance suggested in our forward-looking statements could result from a variety of factors, including the following:

- volatility or degradation in general economic, market, industry or business conditions;
- risks and uncertainties associated with intangible assets, including any future goodwill or intangible assets impairment charges;
- availability and pricing of domestic and foreign supplies of natural gas, NGLs and crude oil and other feedstocks;
- availability and pricing of domestic and foreign supplies of refined products such as gasoline, diesel fuel, jet fuel, home heating oil and petrochemicals;
- foreign imports and exports of crude oil, refined products, natural gas and NGLs;
- completion of midstream infrastructure by competitors;
- midstream and refining industry overcapacity or under capacity;
- changes in the cost or availability of third-party vessels, pipelines, railcars and other means of transportation for crude oil, natural gas, NGLs, feedstocks and refined products;
- the price, availability and acceptance of alternative fuels and alternative-fuel vehicles and laws mandating such fuels or vehicles;
- fluctuations in consumer demand for refined products, natural gas and NGLs, including seasonal fluctuations;
- changes to the expected construction costs and timing of projects and planned investments, and our ability to obtain regulatory and other approvals with respect thereto;
- political and economic conditions in nations that consume refined products, natural gas and NGLs, including the United States, and in crude oil producing regions, including the Middle East, Africa, Canada and South America;
- actions taken by our competitors, including pricing adjustments and the expansion and retirement of pipeline capacity, processing, fractionation and treating facilities in response to market conditions;
- · changes in fuel and utility costs for our facilities;
- failure to realize the benefits projected for capital projects, or cost overruns associated with such projects;
- the ability to successfully implement growth opportunities, including strategic initiatives and actions;
- the ability to realize the strategic benefits of joint venture opportunities;
- accidents or other unscheduled shutdowns affecting our machinery, pipelines, processing, fractionation and treating facilities or equipment, or those of our suppliers or customers;
- unusual weather conditions and natural disasters;

- disruptions due to equipment interruption or failure, including electrical shortages and power grid failures;
- acts of war, terrorism or civil unrest that could impair our ability to gather, process, fractionate or transport crude oil, natural gas, NGLs or refined products;
- state and federal environmental, economic, health and safety, energy and other policies and regulations, including the cost of compliance;
- adverse changes in laws including with respect to tax and regulatory matters;
- modifications to earnings and distribution growth objectives;
- rulings, judgments or settlements and related expenses in litigation or other legal, tax or regulatory matters, including unexpected environmental remediation costs, in excess of any reserves or insurance coverage;
- the suspension, reduction or termination of MPC's obligations under MPLX's commercial agreements;
- political pressure and influence of environmental groups upon policies and decisions related to the production, gathering, refining, processing, fractionation, transportation and marketing of crude oil or other feedstocks, refined products, natural gas, NGLs or other hydrocarbon-based products;
- labor and material shortages;
- the ability and willingness of parties with whom we have material relationships to perform their obligations to us:
- capital market conditions, including an increase of the current yield on MPLX LP common units, adversely affecting MPLX LP's ability to meet its distribution growth guidance;
- changes in the credit ratings assigned to our debt securities and trade credit, changes in the availability of unsecured credit, changes affecting the credit markets generally and our ability to manage such changes; and
- the other factors described in Item 1A. Risk Factors.

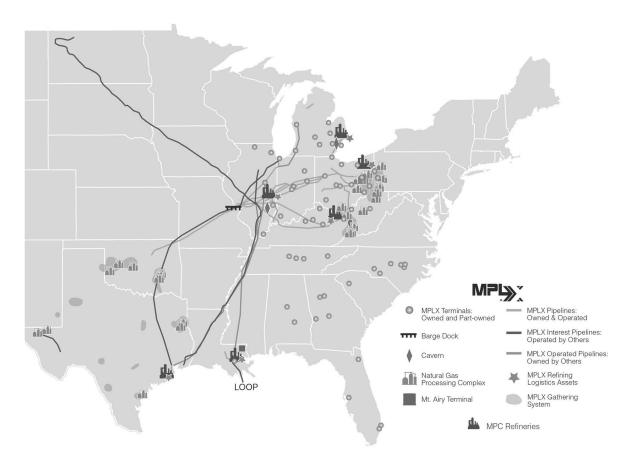
We undertake no obligation to update any forward-looking statements except to the extent required by applicable law.

Part I

Item 1. Business

OVERVIEW

We are a diversified, large-cap master limited partnership ("MLP") formed in 2012 by MPC (as our sponsor) that owns and operates midstream energy infrastructure and logistics assets, and provides fuels distribution services. We are engaged in the transportation, storage and distribution of crude oil and refined petroleum products; gathering, processing and transportation of natural gas; and the gathering, transportation, fractionation, storage and marketing of NGLs. Our operations are conducted in the following operating segments: Logistics and Storage ("L&S") and Gathering and Processing ("G&P"). Our L&S assets are primarily located in the Midwest and Gulf Coast regions of the United States while our G&P assets are primarily located in the Northeast and Southwest regions of the United States. For more information on these segments, see Our Operating Segments discussion below. The map below and Item 2. Properties detail our assets as of December 31, 2018:



We have a strategic relationship with MPC, which is a large source of our revenues, where we have executed multiple transportation and storage services agreements which are long-term, fee-based agreements with minimum volume commitments which provide us with a stable and predictable revenue stream and source of cash flows. MPC's significant interest in us and its stated intent to grow its midstream business has been evidenced by the completion of various dropdowns of MLP-qualifying midstream assets throughout 2017 and 2018. In addition, immediately following the completion of the dropdowns in 2018, our general partner's IDRs were eliminated and its two percent economic general partner interest in MPLX LP was converted into a non-economic general partner interest, all in exchange for 275 million newly-issued MPLX LP common units (the "GP IDR Exchange"). This exchange eliminated the general partner cash distribution requirements of

MPLX. As of December 31, 2018, MPC owned approximately 64 percent of our outstanding common units. MPC will continue to be an important source of our revenues and cash flows for the foreseeable future. We also have long-term relationships with a diverse set of producer customers in many natural gas resource plays, including the Marcellus Shale, Utica Shale, STACK Shale and Permian Basin among others.

The growth of our business has provided us with the financial flexibility to maintain an investment grade credit profile and fund our organic growth capital plan with operating cash and debt. We have significant opportunities to develop, expand and participate in projects which complement our existing assets. We continue to evaluate our non-organic growth opportunities through third-party midstream acquisitions to enhance our existing geographic footprint or expand our activities into new areas.

2018 RESULTS

The following table summarizes the operating performance for each segment for the year ended December 31, 2018. For further discussion of our segments and a reconciliation to our Consolidated Statements of Income, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations as well as Item 8. Financial Statements and Supplementary Data—Note 10.

		2018	
(In millions)	L&S	G&P	Total
Segment revenues and other income	\$ 3,240	\$ 3,185	\$ 6,425
Segment cost of revenues and purchases	1,086	1,707	2,793
Segment income from operations	1,736	767	2,503
Segment Adjusted EBITDA	\$ 2,057	\$ 1,418	\$ 3,475

RECENT DEVELOPMENTS

On January 25, 2019, we announced the board of directors of our general partner had declared a distribution of \$0.6475 per common unit that was paid on February 14, 2019 to common unitholders of record on February 5, 2019.

On November 15, 2018, MPLX issued \$2.25 billion aggregate principal amount of senior notes in a public offering, consisting of \$750 million aggregate principal amount of 4.8 percent unsecured senior notes due February 2029 and \$1.5 billion aggregate principal amount of 5.5 percent unsecured senior notes due February 2049 (collectively, the "November 2018 New Senior Notes"). The November 2018 New Senior Notes were offered at a price to the public of 99.432 percent and 98.031 percent of par, respectively. The proceeds were used to repay outstanding borrowings under the MPLX Credit Agreement (see Note 18) and the MPC Loan Agreement (see Note 6) and to redeem the \$750 million 5.5 percent senior notes due February 2023, as well as for general business purposes. Interest on each series of notes in the November 2018 New Senior Notes is payable semi-annually in arrears on February 15 and August 15, commencing on February 15, 2019.

On December 10, 2018, MPLX redeemed all of the \$750 million 5.5 percent senior notes due February 15, 2023, \$40 million of which was issued by the MarkWest subsidiary. These notes were redeemed at 101.833 percent of the principal amount, which resulted in a payment of \$14 million related to the note premium and the immediate recognition of \$46 million of unamortized debt issuance costs.

2018 ACQUISITIONS, INVESTMENTS AND OTHER HIGHLIGHTS

During 2018, we continued to execute on our organic growth plan through projects which included: expansion of the Ozark pipeline and Wood River-to-Patoka pipelines, completion of the Robinson Butane Cavern, tank farm and marine fleet expansions, and the addition of processing and fractionating capacity at numerous plants through projects which were completed throughout the year. We also had non-organic growth through the

acquisition of MPLX Refining Logistics LLC ("Refining Logistics") and MPLX Fuels Distribution LLC ("Fuels Distribution") from MPC as well as the acquisition of an eastern U.S. Gulf Coast export terminal (the "Mt. Airy Terminal") as described below.

On September 26, 2018, MPLX acquired the Mt. Airy Terminal, which has 4 million barrels of third-party leased storage capacity and a 120 mbpd dock, from Pin Oak Holdings, LLC, for \$451 million. The facility has the capability to significantly expand its storage capacity to 10 million barrels and is permitted for construction of a second 120 mbpd dock. The facility is strategically located on the Mississippi River between New Orleans and Baton Rouge and is near several Gulf Coast refineries, including MPC's Garyville refinery. The Mt. Airy Terminal can handle multiple refined products, as well as residual fuel and bunker products, to provide optionality and flexibility of feedstocks and finished products in a single location. The Mt. Airy Terminal also has significant growth opportunities as a result of multiple pipelines and rail lines crossing the property in addition to being positioned as an aggregation point for liquids growth for both ocean-going vessels and inland barges. See Item 8. Financial Statements and Supplementary Data—Note 4 for additional information.

On February 8, 2018, MPLX issued \$5.5 billion aggregate principal amount of senior notes in a public offering, consisting of \$500 million aggregate principal amount of 3.375 percent unsecured senior notes due March 2023, \$1.25 billion aggregate principal amount of 4.0 percent unsecured senior notes due March 2028, \$1.75 billion aggregate principal amount of 4.5 percent unsecured senior notes due April 2038, \$1.5 billion aggregate principal amount of 4.7 percent unsecured senior notes due April 2048, and \$500 million aggregate principal amount of 4.9 percent unsecured senior notes due April 2058. The notes were offered at a price to the public of 99.931 percent, 99.551 percent, 98.811 percent, 99.348 percent, and 99.289 percent of par, respectively. The net proceeds were used to repay the \$4.1 billion 364-day term loan facility (drawn to fund the cash portion of the consideration for the Refining Logistics and Fuels Distribution acquisition described below) and other borrowings as well as for general business purposes.

On February 1, 2018, MPLX acquired Refining Logistics and Fuels Distribution from MPC in exchange for \$4.1 billion in cash and common units and general partner units of 111.6 million and 2.3 million, respectively. The general partner units maintained MPC's two percent economic general partner interest, which converted into a non-economic general partner interest immediately thereafter as part of the GP IDR Exchange. Refining Logistics owns and operates the integrated tank farm assets that support MPC's refining operations. These essential logistics assets included: 619 tanks with approximately 56 million barrels of storage capacity (crude, finished products and intermediates), 32 rail and truck racks, 18 docks, and gasoline blenders. Fuels Distribution is structured to provide a broad range of scheduling and marketing services as an agent of MPC. See Item 8. Financial Statements and Supplementary Data—Note 4 for additional details.

BUSINESS STRATEGIES

Our primary business objective is to enhance the generation of stable cash flows through executing the following strategies:

Capture Full Midstream Value Chain: We intend to develop incremental infrastructure to support growth across the hydrocarbon value chain. Touch points across the value chain include gathering, processing, fractionation, and inbound/outbound logistics assets such as long-haul pipelines and export facilities. This diversification and integration provide multiple sources of stable fee-based revenue while also enhancing opportunities for third-party revenue capture.

Enhance Cash Flow Stability: We are focused on growing our fee-based services through long-term contracts which provide through-cycle cash flow stability. Planned investments in long-haul pipelines are expected to connect supply to demand markets while adding a source of stable cash flow to the company and expanding our export capabilities will enhance our ability to meet significant growing market needs. For the year ending December 31, 2019, we expect fee-based contracts to be approximately 95 percent of our Net operating margin

(for more information on Net operating margin, which is a non-GAAP measure, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations).

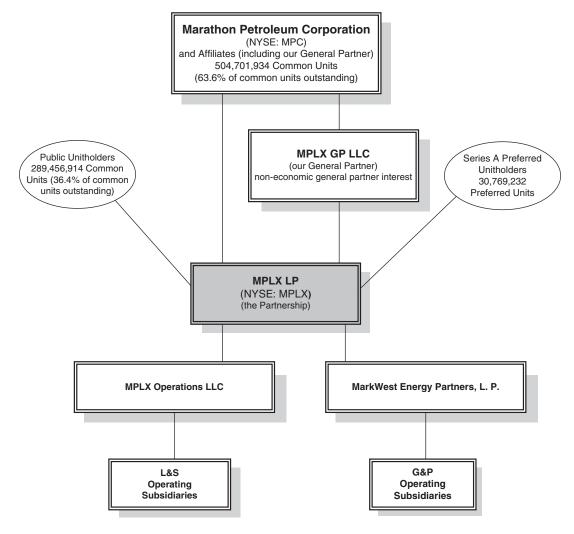
Growth in Premier Basins: Our assets are located in some of the premier production areas in the United States, including the Marcellus and Permian basins. Our business strategy and investments are focused on connecting supply to global demand markets. We intend to increase operating cash flow by investing in opportunities that may arise in our areas of operations and increasing the utilization of our existing facilities. We will evaluate organic growth projects both within our geographic footprint as well as in new areas that we consider strategic.

Maintain Financial Discipline: We high-grade our portfolio of investment opportunities to ensure efficient deployment of capital focusing on mid-teen returns. Our goal is to optimize our cost of capital by maintaining an investment grade credit profile and funding our organic growth capital plan with operating cash and debt. The company does not intend to issue public equity to fund its organic growth capital needs.

Maintain Safe and Reliable Operations: We believe that providing safe, reliable and efficient services is a key component in generating stable cash flows. We are committed to maintaining and improving the safety, reliability and efficiency of our operations. Our intent is to continue promoting high standards for safety and environmental stewardship.

ORGANIZATIONAL STRUCTURE

The following diagram depicts our organizational structure and MPC's ownership interest in us as of February 15, 2019.



We are an MLP with outstanding common units and preferred units. Our common units are publicly traded on the NYSE under the symbol "MPLX." The preferred units rank senior to all common units with respect to distributions and rights upon liquidation. The holders of the preferred units received cumulative quarterly distributions equal to \$0.528125 per unit for each quarter prior to the second quarter of 2018. Beginning with the second quarter of 2018, the holders of the preferred units are entitled to receive a quarterly distribution equal to the greater of \$0.528125 per unit or the amount of distributions they would have received on an as converted basis. The holders may convert their preferred units into common units at any time after the third anniversary of the issuance date or prior to liquidation, dissolution or winding up of the Partnership, in full or in part, subject to minimum conversion amounts and conditions. After the fourth anniversary of the issuance date, MPLX may convert the preferred units into common units at any time, in whole or in part, subject to certain minimum conversion amounts and conditions, if the closing price of MPLX LP common units is greater than \$48.75 for the 20-day trading period immediately preceding the conversion notice date. The conversion rate for the preferred units shall be the quotient of (a) the sum of (i) \$32.50, plus (ii) any unpaid cash distributions on the applicable preferred unit, divided by (b) \$32.50, subject to adjustment for unit distributions, unit splits and similar transactions. The holders of the preferred units are entitled to vote on an as-converted basis with the common

unitholders and have certain other class voting rights with respect to any amendment to the Partnership Agreement that would adversely affect any rights, preferences or privileges of the preferred units. In addition, upon certain events involving a change in control the holders of preferred units may elect, among other potential elections, to convert their preferred units to common units at the then applicable change of control conversion rate.

INDUSTRY OVERVIEW

As of December 31, 2018, our diversified services in the midstream sector are across the hydrocarbon value chain. The types of midstream services provided by both our L&S and G&P segments are as follows:

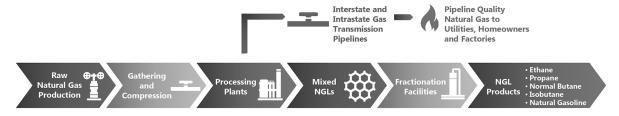
L&S:

Our L&S assets are integral to the success of MPC's operations related to transportation and storage across the hydrocarbon value chain.

- Logistics. Crude oil is the primary raw material for transportation fuels and the basis for many products including plastics and petrochemicals, in addition to heating oil for homes once it is refined and prepared for use. Pipelines bring advantaged North American crude oil from the upper Great Plains, Louisiana, Texas and Canada to numerous refiners. Terminals provide for the receipt, storage, blending, additization, handling and redelivery of refined petroleum products.
- Storage. The hydrocarbon market is often volatile and the ability to take advantage of fast-moving market conditions is enhanced by our ability to store crude oil and other hydrocarbon-based products at our tank farms, butane and propane caverns, and in tanks within MPC's refineries. Storage facilities provide flexibility and logistics optionality, which enhances MPC's ability to maximize returns for refined products.

G&P:

The midstream natural gas industry is the link between the exploration for, and production of, natural gas and the delivery of its hydrocarbon components to end-use markets. The components of this value chain are graphically depicted and further described below:



- Gathering. The natural gas production process begins with the drilling of wells into gas-bearing rock formations. At the initial stages of the midstream value chain, a network of pipelines known as gathering systems directly connect to wellheads in the production area. These gathering systems transport raw, or untreated, natural gas to a central location for treating and processing. A large gathering system may involve thousands of miles of gathering lines connected to thousands of wells. Gathering systems are typically designed to be highly flexible to allow gathering of natural gas at different pressures and scalable to allow gathering of additional production without significant incremental capital expenditures.
 - Compression. Natural gas compression is a mechanical process in which a volume of natural gas at a given pressure is compressed to a desired higher pressure, which allows the natural gas to be gathered more efficiently and delivered into a higher-pressure system, processing plant or pipeline. Field compression is typically used to allow a gathering system to operate at a lower pressure or provide sufficient discharge pressure to deliver natural gas into a higher-pressure system. Since wells produce at progressively lower field pressures as they deplete, field compression is needed to maintain throughput across the gathering system.

- *Treating and dehydration.* To the extent that gathered natural gas contains contaminants, such as water vapor, carbon dioxide and/or hydrogen sulfide, such natural gas is dehydrated to remove the saturated water and treated to separate the carbon dioxide and hydrogen sulfide from the gas stream.
- Processing. Natural gas has a widely varying composition depending on the field, formation reservoir or
 facility from which it is produced. Processing removes the heavier and more valuable hydrocarbon
 components, which are extracted as a mixed NGL stream that includes ethane, propane, butanes and natural
 gasoline (also referred to as "y-grade"). Processing aids in allowing the residue gas remaining after
 extraction of NGLs to meet the quality specifications for long-haul pipeline transportation and commercial
 use.
- Fractionation. Fractionation is the separation of the mixture of extracted NGLs into individual components for end-use sale. It is accomplished by controlling the temperature and pressure of the stream of mixed NGLs in order to take advantage of the different boiling points and vapor pressures of separate products. Fractionation systems typically exist either as an integral part of a gas processing plant or as a central fractionator, often located many miles from the primary production and processing complex. A central fractionator may receive mixed streams of NGLs from many processing plants. A fractionator can fractionate one product or in a central fractionator, multiple products. We operate fractionation facilities at certain processing facilities that separate ethane from the remainder of the y-grade stream. We also operate central fractionation facilities that separate y-grade into propane, butanes and natural gasoline.
- Storage, transportation and marketing. Once the raw natural gas has been treated or processed and the raw NGL mix has been fractionated into individual NGL components, the natural gas is delivered to downstream transmission pipelines and NGL components are stored, transported and marketed to end-use markets. We market NGLs domestically as well as for export to international markets. NGLs are transported via pipeline, railcar, including unit trains, and truck. Each pipeline typically has storage capacity located both throughout the pipeline network and at major market centers to help temper seasonal demand and daily operational or supply-demand shifts. We also have caverns for propane storage in the northeastern United States.

Due to advances in well completion technology and horizontal drilling techniques, unconventional sources, such as shale and tight sand formations, have become the most significant source of current and expected future natural gas production. The industry as a whole is characterized by regional competition, based on the proximity of gathering systems and processing/fractionating plants to producing natural gas wells, or to facilities that produce natural gas as a byproduct of refining crude oil. Due to the shift in the source of natural gas production, midstream providers with a significant presence in the shale plays will likely have a competitive advantage. Well-positioned operations allow access to all major NGL markets and provide for the development of export solutions for producers. This proximity is enhanced by infrastructure build-out and pipeline projects.

OUR OPERATING SEGMENTS

We conduct our operations in two segments which include L&S and G&P. As of December 31, 2018, our assets and operations in each of these segments are described below.

L&S:

The L&S segment includes transportation, storage and marketing of crude oil, refined products and other hydrocarbon-based products, primarily in the Midwest and Gulf Coast regions of the United States. These assets consist of a network of wholly and jointly-owned common carrier crude oil and refined product pipelines and associated storage assets, refined product terminals, storage caverns, refinery-integrated tank farm assets including rail and truck racks, an inland marine business, an export terminal, and a fuels distribution business. Our pipeline network includes over 8,000 miles of pipeline across 17 states. Our storage caverns consist of butane, propane, and liquefied petroleum gas ("LPG") storage with a combined capacity of 4.175 million barrels located in Neal, West Virginia; Woodhaven, Michigan; and Robinson, Illinois. Our terminal facilities for the

receipt, storage, blending, additization, handling and redelivery of refined petroleum products are located primarily in the Midwest, Gulf Coast and Southeast regions of the United States, and have a combined total shell capacity of approximately 23.7 million barrels. We also own tank farm assets at certain MPC refineries which include approximately 56 million barrels storage capacity, in addition to 48 rail and truck racks, 21 docks, and gasoline blenders. Our marine business owns and operates 23 boats, 256 barges, and third-party chartered equipment and includes a Marine Repair Facility ("MRF"), which is a full-service marine shipyard located on the Ohio River adjacent to MPC's Catlettsburg, Kentucky refinery. Our fuels distribution business provides MPC with a broad range of scheduling and marketing services. Additionally, we have ownership in various joint-interests, including LOOP LLC, the only U.S. deep-water oil port, located offshore of Louisiana, which is used to import and export crude oil. We have completed the Robinson Butane Cavern project, Texas City tank farm expansion project, and major expansion work on the Ozark pipeline system as well as increasing our overall pipeline capacity across a variety of other pipeline systems. Our L&S assets are integral to the success of MPC's operations.

We generate revenue in the L&S segment primarily by charging tariffs for transporting crude oil, refined products and other hydrocarbon-based products through our pipelines and at our barge docks delivering to domestic and international destinations, and fees for storing crude oil and refined products at our storage facilities. Our marine business generates revenue under a fee-for-capacity contract with MPC. Our fuels distribution business provides services related to the scheduling and marketing of products on behalf of MPC, for which it generates revenue based on the volume of MPC's products sold each month. We are also the operator of additional crude oil and refined product pipelines owned by MPC and third parties for which we are paid operating fees. For the year ended December 31, 2018, approximately 92 percent of L&S segment revenue and other income was generated from MPC. In this segment, we do not take ownership of the crude oil or products that we transport and store for our customers, and we do not engage in the trading of any commodities. However, we could be required to purchase or sell hydrocarbon-based volumes in the open market to make up negative or positive imbalances.

G&P:

We operate several natural gas gathering systems with the scope of gathering services that we provide dependent upon the composition of the raw or untreated gas at our producer customers' wellheads. For dry gas, we gather and, if necessary, treat the gas and deliver it to downstream transmission systems. For wet gas that contains heavier and more valuable hydrocarbons, we gather the gas for processing at a processing complex. The capacities of these gathering systems are supported by long-term, fee-based agreements with major producer customers. Our natural gas processing complexes remove the heavier and more valuable hydrocarbon components from natural gas. This allows the residue gas remaining after extraction of the NGLs to meet the quality specifications for long-haul pipeline transportation or commercial use. Once natural gas has been processed at a natural gas processing complex, the heavier and more valuable hydrocarbon components, which have been extracted as a mixed NGL stream, can be further separated into their component parts through the process of fractionation. Our NGL fractionation facilities separate the mixture of extracted NGLs into individual purity product components for end-use sale. Our fractionation facilities for propane and heavier NGLs are supported by long-term, fee-based agreements with our key producer customers. All NGLs, other than purity ethane as discussed below, produced at our Cadiz Complex, Seneca Complex, Harmon Creek Complex, Majorsville Complex, Mobley Complex and Sherwood Complex are gathered to the Houston Complex or to the Hopedale Complex through a system of NGL pipelines to allow for fractionation into purity NGL products. NGLs other than purity ethane produced at the Bluestone processing plant are also fractionated at the Bluestone Complex into purity NGL products. We can also gather NGLs produced at a third party's processing facilities to the Houston, Hopedale and Bluestone Complexes for fractionation.

As a result of the volume of natural gas production from the liquids-rich areas of the Marcellus and Utica Shales, we recover ethane from the natural gas stream for producer customers, which allows them to meet residue gas pipeline quality specifications and downstream pipeline commitments. Depending on market conditions, producer customers may also benefit from the potential price uplift received from the sale of their ethane. We have connections to several downstream ethane pipeline projects from many of our systems as follows:

- We transport purity ethane produced at the Majorsville Complex, Mobley Complex and Sherwood Complex to the Houston Complex on a FERC pipeline.
- We deliver purity ethane to Sunoco Logistics Partners L.P.'s ("Sunoco") Mariner West pipeline ("Mariner West") from the Harmon Creek Complex, Houston Complex and Bluestone Complex.
- We deliver purity ethane to Enterprise Products Partners L.P.'s Appalachia-to-Texas Express pipeline from the Houston Complex and the Cadiz Complex.
- Sunoco developed the Mariner East project ("Mariner East"), a pipeline and marine project that originates at our Houston Complex. In December 2014, Mariner East began transporting propane to Sunoco's terminal near Philadelphia, Pennsylvania ("Marcus Hook Facility") where it is loaded onto marine vessels and delivered to international markets. In May 2016, Mariner East began transporting purity ethane in addition to propane to the Marcus Hook Facility.
- In December 2018, phase two of Mariner East, a pipeline from our Houston and Hopedale Complexes in western Pennsylvania and eastern Ohio, respectively, began transporting propane and butane to the Marcus Hook Facility where it is loaded onto marine vessels and delivered to domestic and international markets.

As production in geographic regions and market demand continues to evolve, so do our planned capital expenditures. The following table summarizes our properties that are expected to be constructed or have planned expansions in upcoming years. For a full list of our gas processing facilities, fractionation facilities, natural gas gathering systems, NGL pipelines and natural gas pipelines see Item 2. Properties—Gathering and Processing.

Exposted in

Plant	Existing capacity	Planned capacity expansion	service of expansion capacity	Geographic Region
Processing (MMcf/d):				
Sherwood Complex	2,200	400	2019	Marcellus Operations
Smithburg Complex	_	1,200	TBD	Marcellus Operations
Western Oklahoma				_
Complex	500	165	2019	Southwest Operations
Torñado Complex	_	200	2019	Southwest Operations
Apollo Complex	_	200	2020	Southwest Operations
Preakness Complex	_	200	2021	Southwest Operations
Fractionation (mbpd):				
Hopedale Complex	240	80	2019	Marcellus/Utica Operations
De-ethanization (mbpd):				
Sherwood Complex	60	20	2019	Marcellus Operations

A significant portion of our business comes from a limited number of key customers. For the year ended December 31, 2018, revenues earned from two customers are significant to the segment, each accounting for 15 percent of G&P operating revenues and seven percent of consolidated operating revenues, respectively.

The following table summarizes our key producer customers and attributes for each geographic region:

	Marcellus Operations	Utica Operations	Southern Appalachian Operations	Southwest Operations
Key Producer Customers	Range Resources, Antero Resources ⁽¹⁾ , EQT ⁽¹⁾ , CNX, Southwestern ⁽¹⁾ , HG Energy ⁽¹⁾ , Penn Energy and others	Ascent, Gulfport, Antero Resources ⁽¹⁾ , EQT and others	Diversified Gas and Oil ⁽¹⁾ , and Gas Supply Resources ⁽¹⁾	Newfield, BP, Trinity, Chevron USA and others
Volume Protection	67% of 2018 capacity contains minimum volume commitments	27% of 2018 capacity contains minimum volume commitments	24% of 2018 capacity contains minimum volume commitments	14% of 2018 capacity contains minimum volume commitments
Area Dedications	4.1 million acres	3.9 million acres	None	2.0 million acres

⁽¹⁾ We do not provide gathering services for these producer customers.

For further financial information regarding our segments, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8. Financial Statements and Supplementary Data included in this Annual Report on Form 10-K.

OUR L&S CONTRACTS WITH MPC AND THIRD PARTIES

Transportation Services Agreements, Storage Services Agreements, Terminal Services Agreements and Fuels Distribution Services Agreement with MPC

Our L&S assets are strategically located within, and integral to, MPC's operations. We have entered into multiple transportation, terminal and storage services agreements with MPC. Under these long-term, fee-based agreements, we provide transportation, terminal and storage services to MPC and, other than under our marine transportation services agreement, MPC has committed to provide us with minimum quarterly throughputs. MPC has also committed to provide a fixed fee for 100 percent of available capacity for boats, barges and third-party chartered equipment under the marine transportation services agreement. We also have a Fuels Distribution Services Agreement with MPC under which we provide scheduling and marketing services of MPC's products.

The following table sets forth additional information regarding our transportation, terminal, fuels distribution, and storage services agreements with MPC:

Agreement	Initiation Date	Term (years) ⁽⁴⁾	MPC minimum commitment ⁽¹⁾
Transportation Services (mbpd):			
Crude pipelines	Various	5-10	1,421
Product pipelines	Various	10-15	1,005
Marine	January 1, 2015	6	N/A ⁽²⁾
Storage Services (mbbls):			
Caverns	Various	10-17	4,175
Tank Farms ⁽³⁾	Various	3-10	75,740
Terminal Services (mbbls)	April 1, 2016	10	131,530
Fuels Distribution Services (million gallons)	February 1, 2018	10	23,449

Quarterly commitments for our transportation services agreements refer to throughput in thousands of barrels per day and, for crude oil transportation services agreements, are adjusted for crude viscosities. Commitments for our cavern storage services agreements refer to thousands of barrels. Commitments for

our terminal services agreements refer to quarterly terminal throughput in thousands of barrels. Commitments for the Fuels Distribution Services Agreement refers to millions of gallons per year. Minimum commitments on some agreements are reduced by any third-party throughput volumes.

- (2) MPC has committed to utilize 100 percent of our available capacity of boats and barges.
- (3) Volume shown represents total tank farm capacity in thousands of barrels (includes Refining Logistics tanks).
- Renewal terms on our agreements include multiple two to five-year terms for transportation services agreements, one additional five-year term for our terminal services agreement, various renewal terms ranging from zero to 10 years for our cavern storage services agreements, various renewal terms ranging from one to five years for our tank farm storage services agreements, two additional five-year terms for our marine transportation services agreement and one additional five-year term for our Fuels Distribution Services Agreement. These renewals are automatic, unless terminated by either party.

Under all of our transportation services agreements, except for our marine agreement, if MPC fails to transport its minimum throughput volumes during any quarter, then MPC will pay us a deficiency payment equal to the volume of the deficiency multiplied by the tariff rate then in effect (the "Quarterly Deficiency Payment"). Under these transportation services agreements, the amount of any Quarterly Deficiency Payment paid by MPC may be applied as a credit for any volumes transported on the applicable pipeline in excess of MPC's minimum volume commitment during any of the succeeding four or eight quarters, after which time any unused credits will expire. Upon the expiration or termination of a transportation services agreement, MPC will have the opportunity to apply any such remaining credit amounts until the completion of any such four-quarter or eight-quarter period, as applicable. Remaining credits may be used against any volumes shipped by MPC on the applicable pipelines, without regard to minimum volume commitments that may have been in place during the term of the agreement.

Under our terminal services agreement, if MPC fails to meet its minimum volume commitment during any quarter, then MPC will pay us a deficiency payment equal to the volume of the deficiency multiplied by the contractual fee then in effect.

Under the Fuels Distribution Services Agreement, MPC pays MPLX a tiered monthly fee-based on the volume of MPC's products sold by MPLX each month, subject to a maximum annual volume. MPLX has agreed to use commercially reasonable efforts to sell not less than a minimum quarterly volume of MPC's products during each calendar quarter. If MPLX sells less than the minimum quarterly volume of MPC's products during any calendar quarter despite its commercially reasonable efforts, MPC will pay MPLX a deficiency payment equal to the volume deficiency multiplied by the applicable tiered fee. The dollar amount of actual sales volume of MPC's products that exceeds the minimum quarterly volume (an "Excess Sale") for a particular quarter will be applied as a credit, on a first-in-first-out basis, against any future deficiency payment owed by MPC to MPLX during the four calendar quarters immediately following the calendar quarter in which the Excess Sale occurs.

MPC's obligations under these agreements will not terminate if MPC no longer controls our general partner.

Pipeline Operating Agreements with MPC

We operate various pipelines owned by MPC under operating services agreements. Under these operating services agreements, we receive an operating fee for operating the assets, which include certain MPC whollyowned or partially-owned crude oil and refined product pipelines, and for providing various operational services with respect to those assets. We are generally reimbursed for all direct and indirect costs associated with operating the assets and providing such operational services. These agreements vary in length and automatically renew with most agreements being indexed for inflation.

Pipeline Operating Agreements with Third Parties

We maintain and operate four joint interest pipelines including Capline, Centennial, Lou-Lex and Muskegon. We receive an operating fee for each of these pipelines, which is subject to adjustment for inflation. In addition, we

are reimbursed for specific costs associated with operating each pipeline. The length and renewals terms for each agreement vary.

Terminal Services Agreements with Third Parties

We have multiple terminal services agreements with third parties under which we provide use of pipelines and tank storage, and provide services, facilities and other infrastructure related to the receipt, storage, throughput, blending and delivery of commodities. Generally, these agreements are subject to prepaid throughput volumes under which we agree to handle a certain amount of product throughput each month in exchange for a predetermined fixed fee, with any excess throughput or ancillary services subject to additional charges.

Management Services Agreement with MPC

MPLX has a management services agreement with MPC under which it provides management services to assist MPC in the oversight and management of the marine business. MPLX receives a fixed annual fee for providing the required management services. This fee is adjusted annually on the anniversary of the contract for inflation and any changes in the scope of the management services provided. This agreement is set to expire on January 1, 2021 and automatically renews for two additional renewal terms of five years each unless terminated by either party.

Other Agreements with MPC

We have an omnibus agreement with MPC that addresses our payment of a fixed annual fee to MPC for the provision of executive management services by certain executive officers of our general partner and our reimbursement to MPC for the provision of certain services to us, as well as MPC's indemnification of us for certain matters, including certain environmental, title and tax matters. In addition, we will indemnify MPC for certain matters under this agreement.

We also have various employee services agreements under which we reimburse MPC for the provision of certain operational and management services to us. All of the employees that conduct our business are directly employed by affiliates of our general partner.

OUR RELATIONSHIP WITH MPC

One of our competitive strengths is our strategic relationship with MPC, which, with its recent acquisition of Andeavor effective October 1, 2018, is the largest crude oil refiner in the United States in terms of refining capacity. MPC owns and operates 16 refineries in the West Coast, Gulf Coast and Mid-Continent regions of the United States and distributes refined products through transportation, storage, distribution and marketing services provided by its midstream segment. MPC's midstream segment consists of both MPLX and ANDX, the latter of which was acquired through the Andeavor acquisition. MPLX, through its fuels distribution services, distributes refined products under the Marathon brand through an extensive network of retail locations owned or operated by independent entrepreneurs, and through company owned and operated convenience stores across the United States, including under the Speedway brand.

MPC retains a significant interest in us through its non-economic ownership of our general partner and holding approximately 64 percent of the outstanding common units of MPLX as of December 31, 2018. We believe MPC will promote and support the successful execution of our business strategies given its significant interest in us and its stated intention to grow its midstream business. This was demonstrated by the completion of the dropdowns of MLP-qualifying assets and services in 2017 and 2018.

OUR G&P CONTRACTS WITH THIRD PARTIES

The majority of our revenues in the G&P segment are generated from natural gas gathering, transportation and processing; NGL gathering, transportation, fractionation, exchange, marketing and storage; and crude oil

gathering and transportation. MPLX enters into a variety of contract types including fee-based, percent-of-proceeds, keep-whole and purchase arrangements in order to generate service revenue and product sales. See Item 8. Financial Statements and Supplementary Data—Note 2 for a further description of these different types of arrangements.

In many cases, MPLX provides services under contracts that contain a combination of more than one of the arrangements described above. The terms of MPLX's contracts vary based on gas quality conditions, the competitive environment when the contracts are signed and customer requirements. In addition, minimum volume commitments may create contract liabilities or deferred credits if current period payments can be used for future services. Breakage is estimated and recognized into service revenue in instances where it is probable the customer will not use the credit in future periods.

MPLX's contract mix and exposure to natural gas and NGL prices may change as a result of changes in producer preferences, MPLX expansion in regions where some types of contracts are more common and other market factors, including current market and financial conditions which have increased the risk of volatility in oil, natural gas and NGL prices. Any change in mix may influence our long-term financial results.

COMPETITION

Within our L&S segment, as a result of our contractual relationship with MPC under our transportation and storage services agreements, our terminal services agreement, and our physical asset connections to MPC's refineries and terminals, we believe that MPC will continue to utilize our assets for transportation, storage, distribution and marketing services.

If MPC's customers reduced their purchases of products from MPC due to the increased availability of less expensive products from other suppliers or for other reasons, MPC may ship only the minimum volumes (or pay the shortfall payment if it does not ship the minimum volumes), which would cause a decrease in our revenues. MPC competes with integrated petroleum companies, which have their own crude oil supplies and distribution and marketing systems, as well as with independent refiners, many of which also have their own distribution and marketing systems. MPC also competes with other suppliers that purchase refined products for resale. Competition in any particular geographic area is affected significantly by the volume of products produced by refineries in that area and by the availability of products and the cost of transportation to that area from distant refineries.

In our G&P segment, we face competition for natural gas gathering and in obtaining natural gas supplies for our processing and related services; in obtaining unprocessed NGLs for gathering and fractionation; and in marketing our products and services. Competition for natural gas supplies is based primarily on the location of gas gathering systems and gas processing plants, operating efficiency and reliability, and the ability to obtain a satisfactory price for products recovered. Competitive factors affecting our fractionation services include availability of capacity, proximity to supply and industry marketing centers, and cost efficiency and reliability of service. Competition for customers to purchase our natural gas and NGLs is based primarily on price, delivery capabilities, flexibility and maintenance of high-quality customer relationships.

Our competitors include:

- natural gas midstream providers, of varying financial resources and experience, that gather, transport, process, fractionate, store and market natural gas and NGLs;
- major integrated oil companies and refineries;
- independent exploration and production companies;
- interstate and intrastate pipelines; and
- other marine and land-based transporters of natural gas and NGLs.

Some of our competitors operate as MLPs or are owned by infrastructure funds and may enjoy a cost of capital comparable to and, in some cases, lower than ours. Other competitors, such as major oil and gas and pipeline companies, have capital resources and contracted supplies of natural gas substantially greater than ours. Smaller local distributors may enjoy a marketing advantage in their immediate service areas.

We believe that our customer focus, demonstrated by our ability to offer an integrated package of services and our flexibility in considering various types of contractual arrangements, allows us to compete more effectively. This includes having access to both NGL and natural gas markets to allow for flexibility in our gathering and processing in addition to having critical connections to a strong sponsor and key market outlets for NGLs and natural gas. In the Marcellus and Utica regions, our early entrance in the liquids-rich corridors of the Marcellus and Utica shale plays through our strategic gathering and processing agreements with key producers enhances our competitive position to participate in the further development of these resource plays. In the Southern Appalachia region, our operational experience of more than 20 years as the largest processor and fractionator and our existing presence in the Appalachian Basin provide a significant competitive advantage. In the Southwest region, our major gathering systems are located primarily in the heart of shale plays with significant long-term growth opportunities and provide producers with low-pressure and fuel-efficient service, which differentiates us from many competing gathering systems in those areas. The strategic location of our assets, including those connected to MPC, and the long-term nature of many of our contracts also provide a significant competitive advantage.

INSURANCE

Our assets may experience physical damage as a result of an accident or natural disaster. These hazards can also cause personal injury and loss of life, severe damage to and destruction of property and equipment, pollution or environmental damage and business interruption. We are insured under MPC and other third-party insurance policies. The MPC policies are subject to shared deductibles.

SEASONALITY

The volume of crude oil and refined products transported and stored utilizing our assets is directly affected by the level of supply and demand for crude oil and refined products in the markets served directly or indirectly by our assets. Many effects of seasonality on the L&S segment's revenues will be mitigated through the use of our fee-based transportation and storage services agreements with MPC that include minimum volume commitments.

Our G&P segment can be affected by seasonal fluctuations in the demand for natural gas and NGLs and the related fluctuations in commodity prices caused by various factors including variations in weather patterns from year to year. However, we manage the seasonality impact through the execution of our marketing strategy. We have access to up to 0.8 million barrels of propane storage capacity in the Southern Appalachia region provided by an arrangement with a third party which provides us with flexibility to manage the seasonality impact.

REGULATORY MATTERS

Our operations are subject to extensive regulations. The failure to comply with applicable laws and regulations or to obtain, maintain and comply with requisite permits and authorizations can result in substantial penalties and other costs to MPLX. The regulatory burden on our operations increases our cost of doing business and, consequently, affects our profitability. However, we do not believe that we are affected in a significantly different manner by these laws and regulations than are our competitors. The following is a summary of some of the environmental health and safety laws and regulations to which our operations are subject.

Pipeline Regulations

Common Carrier Liquids Pipeline Operations. We have liquids pipelines that are common carriers subject to regulation by various federal, state and local agencies. FERC regulates interstate transportation on liquids

pipelines under the Interstate Commerce Act ("ICA"), Energy Policy Act of 1992 ("EPAct 1992") and the rules and regulations promulgated under those laws. The ICA and its implementing regulations require that tariff rates for interstate pipelines that transport crude oil, NGLs (including purity ethane) and refined petroleum products (collectively referred to as "petroleum pipelines"), be just and reasonable and must not be unduly discriminatory or confer any undue preference upon any shipper.

The ICA requires that interstate petroleum pipeline transportation rates and terms and conditions of service be filed with the governing agency, which is FERC, and FERC's regulations require the rate and rules and regulations tariffs to be publicly posted on the company's website. Under the ICA, persons with a substantial economic interest in a petroleum pipeline's rate or service may challenge that rate or service before FERC. FERC is authorized to investigate such charges and may suspend the effectiveness of a newly filed rate or service for up to seven months. A successful protest to a new rate or service could result in a petroleum pipeline paying refunds, together with interest, for the period that the rate or service was in effect. A successful protest could also result in FERC disallowing the rate or service. A successful complaint to an existing rate or service could result in a petroleum pipeline paying reparations, together with interest, for the period beginning two years prior to the date of the complaint until the just and reasonable rate or service was established. FERC may also investigate, upon complaint, protest, or on its own motion, newly proposed rates and terms of service, existing rates and related rules, and may order a pipeline to change them prospectively or may bar a pipeline from implementing the proposed new or changed rates or terms of service.

EPAct 1992 deemed certain interstate petroleum pipeline rates then in effect to be just and reasonable under the ICA. These rates are commonly referred to as "grandfathered rates." Our rates in effect for the 365-day period ending on the date of the passage of EPAct 1992 for interstate transportation service were deemed just and reasonable and therefore are grandfathered. Subsequent changes to those rates are not grandfathered. New rates have since been established after EPAct 1992 for certain pipelines, and the rates for certain of our products pipelines have subsequently been approved as market-based rates.

EPAct 1992 required FERC to establish a simplified and generally applicable ratemaking methodology for interstate petroleum pipelines. As a result, FERC adopted an indexed rate methodology which, as currently in effect, allows petroleum pipelines to change their rates within prescribed ceiling levels that are tied to annual changes in the PPI-FG. FERC's indexing methodology is subject to review every five years. During the five-year period commencing July 1, 2016 and ending June 30, 2021, petroleum pipelines charging indexed rates are permitted to adjust their indexed ceilings annually by PPI plus an adder that is currently set at 1.23 percent and is reviewed every five years. The current adder will be in effect until June 30, 2021 or upon a formal rulemaking by FERC. The indexing methodology is applicable to existing rates, including grandfathered rates, with the exclusion of market-based rates and settlement rates (unless permitted under the settlement). A pipeline is not required to raise its rates up to the index ceiling, but it is permitted to do so, and rate increases made under the index are presumed to be just and reasonable unless a protesting party can demonstrate that the portion of the rate increase resulting from application of the index is substantially in excess of the pipeline's costs. However, FERC is currently evaluating how indexed adjustments to rates can be challenged as well as how pipelines must demonstrate their annual costs and incomes. Therefore, we cannot guarantee FERC will not make changes to its current policy regarding challenges in the future. Under the indexing rate methodology, in any year in which the index is negative, a pipeline must lower the rate ceiling and file to lower their rates if those rates would otherwise be above the rate ceiling, unless the pipeline makes a filing attesting that all shippers that pay the rate have approved the pipeline not lowering the rate or the pipeline can demonstrate substantial divergence between the actual costs experienced by the pipeline and the rate resulting from application of the index.

While petroleum pipelines often use the indexing methodology to change their rates, petroleum pipelines may elect to support proposed rates by using other methodologies such as cost-of-service ratemaking, market-based rates and settlement rates. A pipeline can follow a cost-of-service approach when seeking to increase its rates above the rate ceiling provided that the pipeline can establish that there is a substantial divergence between the actual costs experienced by the pipeline and the rate resulting from application of the index. A pipeline can

charge market-based rates if it establishes that it lacks significant market power in the affected markets. In addition, a pipeline can establish rates under settlement if agreed upon by all current shippers. We have used index rates, settlement rates and market-based rates to change the rates for our different FERC-regulated petroleum pipelines.

FERC issued a policy statement in May 2005 stating that it would permit interstate petroleum pipelines, among others, to include an income tax allowance in cost-of-service rates to reflect actual or potential tax liability attributable to a regulated entity's operating income, regardless of the form of ownership. Under FERC's 2005 policy, a tax pass-through entity seeking such an income tax allowance must establish that its partners or members have an actual or potential income tax liability on the regulated entity's income. FERC's 2005 income tax policy was the subject of various appeals by shippers, before FERC and the courts, and United States Court of Appeals for the District of Columbia Circuit issued a ruling that remanded a case related to pass-through entities and the income tax allowance back to FERC for further review and consideration. In response, FERC issued a Revised Policy Statement on the Treatment of Income Taxes on March 15, 2018 indicating, among other things, that interstate petroleum pipelines held by master limited partnerships would no longer be allowed to recover an income tax allowance in cost-of-service rates. We cannot guarantee that FERC or the courts will not make changes to the policy in the future.

Intrastate services provided by certain of our liquids pipelines are subject to regulation by state regulatory authorities. Much of the state regulation is complaint-based, both as to rates and priority of access. The state regulators could limit our ability to increase our rates or to set rates based on our costs or could order us to reduce our rates and could require the payment of refunds to shippers.

FERC and state regulatory agencies generally have not investigated rates on their own initiative when those rates are not the subject of a protest or a complaint by a shipper. MPC has agreed not to contest our tariff rates for the term of our transportation and storage services agreements with MPC, but we do not have any of these types of agreements with third parties. FERC or a state commission could investigate our rates on its own initiative or at the urging of a third party if the third party is either a current shipper or is able to show that it has a substantial economic interest in our tariff rate level.

If our rate levels were investigated, the inquiry could result in a comparison of our rates to those charged by others or to an investigation of our costs.

If FERC or a state commission were to determine that our rates were or had become unjust and unreasonable, we could be ordered to reduce rates prospectively and pay refunds and/or reparations to shippers.

FERC-Regulated Natural Gas Pipelines. Our natural gas pipeline operations are subject to federal, state and local regulatory authorities. Specifically, we have FERC gas tariffs on file for MarkWest New Mexico, L.L.C. and MarkWest Pioneer, L.L.C. ("MarkWest Pioneer"), with respect to our Hobbs Pipeline and the Arkoma Connector Pipeline. Additionally, we have ownership interests in joint ventures with FERC gas tariffs on file.

Under the Natural Gas Act ("NGA"), FERC has authority to regulate natural gas companies that provide natural gas pipeline transportation services in interstate commerce. FERC's authority to regulate those services includes the rates charged for the services, terms and conditions of service, certification and construction of new facilities, the extension or abandonment of services and facilities, the maintenance of accounts and records, the acquisition and disposition of facilities, the initiation and discontinuation of services and various other matters. Natural gas companies may not charge rates that have been determined to be unjust and unreasonable, or unduly discriminatory by FERC. In addition, FERC prohibits FERC-regulated natural gas companies from unduly preferring, or unduly discriminating against, any person with respect to pipeline rates or terms and conditions of service or other matters. The rates and terms and conditions for the Hobbs Pipeline and the Arkoma Connector Pipeline can be found in their respective FERC-approved tariffs and in negotiated rate agreements entered into under those tariffs. Pursuant to FERC's jurisdiction, existing rates and/or other tariff provisions may be

challenged (e.g., by complaint) and rate increases proposed by the pipeline or other tariff changes may be challenged (e.g., by protest). We also cannot be assured that FERC will continue to pursue its approach of pro-competitive policies as it considers matters such as pipeline rates and rules, rights of access, capacity and other issues that impact natural gas facilities. Any successful complaint or protest related to our facilities could have an adverse impact on our revenues.

Energy Policy Act of 2005. On August 8, 2005, President Bush signed into law the Domenici-Barton Energy Policy Act of 2005 ("2005 EPAct"). Under the 2005 EPAct, FERC may impose civil penalties for violations of statutory and regulatory requirements. The 2005 EPAct also amends the NGA to add an anti-market manipulation provision, which makes it unlawful for any entity to engage in prohibited behavior in contravention of rules and regulations to be prescribed by FERC. FERC issued Order No. 670 to implement the anti-market manipulation provision of the 2005 EPAct. This order makes it unlawful for gas pipelines and storage companies that provide interstate services to: (i) directly or indirectly, use or employ any device, scheme or artifice to defraud in connection with the purchase or sale of natural gas subject to the jurisdiction of FERC, or the purchase or sale of transportation services subject to the jurisdiction of FERC; (ii) make any untrue statement of material fact or omit to make any such statement necessary to make the statements made not misleading; or (iii) engage in any act or practice that operates as a fraud or deceit upon any person. The anti-market manipulation rule and enhanced civil penalty authority reflect an expansion of FERC's enforcement authority.

Standards of Conduct. FERC has adopted affiliate standards of conduct applicable to interstate natural gas pipelines and certain other regulated entities, defined as "Transmission Providers." Under these rules, a Transmission Provider becomes subject to the standards of conduct if it provides service to affiliates that engage in marketing functions (as defined in the standards). If a Transmission Provider is subject to the standards of conduct, the Transmission Provider's transmission function employees (including the transmission function employees of any of its affiliates) must function independently from the Transmission Provider's marketing function employees (including the marketing function employees of any of its affiliates). The Transmission Provider must also comply with certain posting and other requirements.

Gas-Electric Coordination. In 2015, FERC issued Order 587-W and adopted new standards designed to improve coordination between the gas and electric industries. Among other things, the new standards revise the nomination timelines used by interstate natural gas pipelines. Interstate natural gas pipelines were required to implement the new standards in 2016. FERC continues to evaluate other measures to improve coordination between the gas and electric industries, and the adoption of any such measures may impact FERC's regulation of jurisdictional natural gas pipelines.

Intrastate Natural Gas Pipeline Regulation. Some of our intrastate gas pipeline facilities are subject to various state laws and regulations that affect the rates we charge and terms of service. Although state regulation is typically less onerous than FERC, state regulation typically requires pipelines to charge just and reasonable rates and to provide service on a non-discriminatory basis. The rates and service of an intrastate pipeline generally are subject to challenge by complaint. Additionally, FERC has adopted certain regulations and reporting requirements applicable to intrastate natural gas pipelines (and Hinshaw natural gas pipelines) that provide certain interstate services subject to FERC's jurisdiction. We are subject to such regulations and reporting requirements to the extent that any of our intrastate pipelines provide, or are found to provide, such interstate services.

Additional proposals and proceedings that might affect the natural gas industry periodically arise before Congress, FERC and the courts. We cannot predict the ultimate impact of these or the above regulatory changes to our natural gas operations. We do not believe that we would be affected by any such action materially differently than other midstream natural gas companies with whom we compete.

Natural Gas Gathering Pipeline Regulation. Section 1(b) of the NGA exempts natural gas gathering facilities from the jurisdiction of FERC if the primary function of the facilities is gathering natural gas. There is, however,

no bright-line test for determining the jurisdictional status of pipeline facilities. We own a number of facilities that we believe establish the pipeline's status as a gatherer not subject to FERC jurisdiction. The distinction between FERC-regulated transmission services and federally unregulated gathering services is the subject of litigation from time to time, so we cannot provide assurance that FERC will not at some point assert that these facilities are within its jurisdiction or that such an assertion would not adversely affect our results of operations and revenues. In such a case, we would possibly be required to file a tariff with FERC, provide a cost justification for the transportation charge and obtain certificate(s) of public convenience and necessity for the FERC-regulated pipelines, and comply with additional FERC requirements.

In the states in which we operate, regulation of gathering facilities and intrastate pipeline facilities generally includes various safety, environmental and, in some circumstances, open access, non-discriminatory take requirement and complaint-based rate regulation. For example, some of our natural gas gathering facilities are subject to state ratable take and common purchaser statutes and regulations. Ratable take statutes and regulations generally require gatherers to take, without undue discrimination, natural gas production that may be tendered to the gatherer for handling. Similarly, common purchaser statutes and regulations generally require gatherers to purchase gas without undue discrimination as to source of supply or producer. These statutes are designed to prohibit discrimination in favor of one producer over another producer or one source of supply over another source of supply. Although state regulation is typically less onerous than at FERC, these statutes and regulations have the effect of restricting our right as an owner of gathering facilities to decide with whom we contract to purchase or gather natural gas.

Natural gas gathering may receive greater regulatory scrutiny at both the state and federal levels now that FERC has taken a less stringent approach to regulation of the gathering activities of interstate pipeline transmission companies and a number of such companies have transferred gathering facilities to unregulated affiliates. Our gathering operations could be adversely affected should they be subject in the future to the application of state or federal regulation of rates and services or regulated as a public utility. Our gathering operations also may be or become subject to safety and operational regulations and permitting requirements relating to the design, siting, installation, testing, construction, operation, replacement and management of gathering facilities. Additional rules and legislation pertaining to these matters are considered or adopted from time to time. We cannot predict what effect, if any, such changes might have on our operations, but the industry could be required to incur additional capital expenditures and increased costs depending on future legislative and regulatory changes.

Currently, PHMSA is evaluating possible changes to the scope and applicability of 49 Code of Federal Regulations ("C.F.R.") Part 192, which governs construction standards and operation of certain natural gas gathering pipelines. The changes that have been proposed include, but are not limited to, more stringent construction standards for remote facilities, as well as additional record-keeping requirements. Depending upon the nature of the final rule-making, those could have an impact upon MPLX LP operations. We do not anticipate that we would be impacted by these regulatory initiatives to any greater degree than other similarly situated competitors.

Natural Gas Processing. Our natural gas processing operations are not presently subject to FERC or state rate regulation. There can be no assurance that our processing operations will continue to be exempt from rate regulation in the future. In addition, although the processing facilities may not be directly related, other laws and regulations may affect the availability of natural gas for processing, such as state regulation of production rates and maximum daily production allowances from gas wells, which could impact our processing business.

NGL Pipelines. We have constructed various NGL product pipelines to transport NGL products, some of which are regulated by FERC, and we may elect to construct additional such pipelines in the future that may be subject to these same regulatory requirements. Pipelines providing transportation of NGLs in interstate commerce are subject to the same regulatory requirements as common carrier petroleum pipelines. See "Common Carrier Liquids Pipeline Operations" above. We have several NGL pipelines that carry NGLs owned by us between our processing and fractionation facilities that cross state lines. We do not have FERC tariffs on file for these

pipelines because we believe they are not subject to FERC requirements or that they would otherwise meet the qualifications for a waiver from FERC's filing and reporting requirements. We cannot, however, provide assurance that FERC will not, at some point, either at the request of other entities or on its own initiative, assert that some or all of these pipelines are subject to FERC requirements for interstate petroleum pipelines and not exempt from its filing and reporting requirements. We also cannot provide assurance that such an assertion would not adversely affect our results of operations. In the event FERC were to determine that these NGL pipelines are subject to FERC requirements for common carrier pipelines or otherwise would not qualify for a waiver from FERC's applicable regulatory requirements, we would likely be required to file a tariff with FERC for the pipelines, provide a cost justification for their transportation rates, and provide service to all potential shippers without undue discrimination, and we may also be subject to fines, penalties or other sanctions.

Our NGL pipelines are also subject to safety regulation by the DOT under 49 C.F.R. Part 195 for operators of hazardous liquid pipelines. Currently, PHMSA plans to move forward with final rulemaking on possible changes to the scope and applicability of 49 C.F.R. Part 195, including, among other things, expansion of reporting obligations, additional inspection requirements, emergency order authority, expansion of integrity management principles and expansion of the use of leak detection systems. These changes will likely be implemented in 2019 and could have an impact upon MPLX LP and other pipeline operators. Our NGL pipelines and operations may also be or become subject to state public utility or related jurisdiction which could impose additional safety and operational regulations relating to the design, siting, installation, testing, construction, operation, replacement and management of NGL gathering facilities.

Propane Regulation. National Fire Protection Association Pamphlets No. 54 and No. 58, which establish rules and procedures governing the safe handling of propane or comparable regulations, have been adopted as the industry standard in all of the states in which we operate. In some states these laws are administered by state agencies and in others they are administered on a municipal level. With respect to the transportation of propane by truck, we are subject to regulations promulgated under the Federal Motor Carrier Safety Act. These regulations cover the transportation of hazardous materials and are administered by the DOT. We conduct ongoing training programs to help ensure that our operations comply with applicable regulations. We maintain various permits that are necessary to operate our facilities, some of which may be material to our propane operations. We believe that the procedures currently in effect at all of our facilities for the handling, storage and distribution of propane are consistent with industry standards and comply in all material respects with applicable laws and regulations.

Marine Transportation. Our marine transportation business is subject to regulation by the USCG, federal laws, including the Jones Act, state laws and certain international conventions, as well as numerous environmental regulations. The majority of our vessels are subject to inspection by the USCG and carry certificates of inspection. The crews employed aboard the vessels are licensed or certified by the USCG. We are required by various governmental agencies to obtain licenses, certificates and permits for our vessels.

Our marine transportation business competes principally in markets subject to the Jones Act, a federal cabotage law that restricts domestic marine transportation in the United States to vessels built and registered in the United States, and manned and owned by United States citizens. We presently meet all of the requirements of the Jones Act for our vessels. The loss of Jones Act status could have a significant negative effect on us. The requirements that our vessels be United States built and manned by United States citizens, the crewing requirements and material requirements of the USCG, and the application of United States labor and tax laws increases the cost of United States flag vessels when compared with comparable foreign flag vessels. Our marine transportation business could be adversely affected if the Jones Act were to be modified so as to permit foreign competition that is not subject to the same United States government imposed burdens. Since the events of September 11, 2001, the United States government has taken steps to increase security of United States ports, coastal waters and inland waterways. We believe that it is unlikely that the current cabotage provisions of the Jones Act would be modified or eliminated in the foreseeable future.

The Secretary of Homeland Security is vested with the authority and discretion to waive the Jones Act to such extent and upon such terms as the Secretary may prescribe whenever the Secretary deems that such action is necessary in the interest of national defense. For example, the Secretary has waived the Jones Act generally or with respect to the transportation of certain petroleum products for limited periods of time and in limited areas following the occurrence of certain natural disasters such as hurricanes. Waivers of the Jones Act, whether in response to natural disasters or otherwise, could result in increased competition from foreign tank vessel operators, which could negatively impact our marine transportation business.

Pipeline Interconnections. One or more of our plants include pipeline interconnections to, or incidental gathering pipelines that connect the plants to, interstate pipelines. These pipeline interconnections are an integral part of our facilities and are not currently being used, nor can they be used in the future, by any third party due to their origin points at our proprietary facilities. Therefore, we believe these pipeline interconnections are part of our plant facilities and are not subject to the jurisdiction of FERC. In the event that FERC were to determine that these pipeline interconnections were subject to its jurisdiction, we believe the pipelines would qualify for a waiver from most FERC reporting and filing requirements. In the event that FERC were to determine that the pipeline interconnections did not qualify for such waivers, we would likely be required to file a tariff with FERC for the pipeline interconnections, provide a cost justification for their transportation rates and provide service to all potential shippers without undue discrimination. In such event, we may experience increased operating costs and reduced revenues.

Security. Certain of our facilities have been preliminarily classified as subject to the Department of Homeland Security Chemical Facility Anti-Terrorism Standards. In addition, we have several facilities that are subject to the United States Coast Guard's Maritime Transportation Security Act, and a number of other facilities that are subject to the Transportation Security Administration's Pipeline Security Guidelines and are designated as "Critical Facilities." The Transportation Security Administration Security Guidelines are subject to change without formal regulatory proposal and review. We have an internal inspection program designed to monitor and ensure compliance with all of these requirements. We believe that we are in material compliance with all applicable laws and regulations regarding the security of our facilities.

ENVIRONMENTAL REGULATION

General

Our processing and fractionation plants, storage facilities, pipelines and associated facilities are subject to multiple obligations and potential liabilities under a variety of federal, regional, state and local laws and regulations relating to environmental protection. Such environmental laws and regulations may affect many aspects of our present and future operations, including for example, requiring the acquisition of permits or other approvals to conduct regulated activities that may impose burdensome conditions or potentially cause delays, restricting the manner in which we handle or dispose of our wastes, limiting or prohibiting construction or other activities in environmentally sensitive areas such as wetlands or areas inhabited by threatened or endangered species, requiring us to incur capital costs to construct, maintain and/or upgrade processes, equipment and/or facilities, restricting the locations in which we may construct our compressor stations and other facilities and/or requiring the relocation of existing stations and facilities, and requiring remedial actions to mitigate any pollution that might be caused by our operations or attributable to former operations. Spills, releases or other incidents may occur in connection with our active operations or as a result of events outside of our reasonable control, which incidents may result in non-compliance with such laws and regulations. Any failure to comply with these legal requirements may expose us to the assessment of sanctions, including administrative, civil and criminal penalties, the imposition of remedial or corrective actions and the issuance of orders enjoining or limiting some or all of our operations.

We believe that our operations and facilities are in substantial compliance with applicable environmental laws and regulations and the cost of continued compliance with such laws and regulations will not have a material

adverse effect on our results of operations or financial condition. We cannot assure, however, that existing environmental laws and regulations will not be reinterpreted or revised or that new environmental laws and regulations will not be adopted or become applicable to us. Generally speaking, the trend in environmental law is to place more restrictions and limitations on activities that may be perceived to adversely affect the environment, which may cause significant delays in obtaining permitting approvals for our facilities, result in the denial of our permitting applications, or cause us to become involved in time consuming and costly litigation. Thus, there can be no assurance as to the amount or timing of future expenditures for compliance with environmental laws and regulations, permits and permitting requirements or remedial actions pursuant to such laws and regulations, and actual future expenditures may be different from the amounts we currently anticipate. Revised or additional environmental requirements may result in increased compliance and mitigation costs or additional operating restrictions, particularly if those costs are not fully recoverable from our customers, and could have a material adverse effect on our business, financial condition, results of operations and cash flow. We may not be able to recover some or any of these costs from insurance. Such revised or additional environmental requirements may also result in substantially increased costs and material delays in the construction of new facilities or expansion of our existing facilities, which may materially impact our ability to meet our construction obligations with our producer customers.

Under the omnibus agreement, MPC has agreed to indemnify us for all known and certain unknown environmental liabilities that are associated with the ownership or operation of our assets that we acquired from MPC and due to occurrences on or before the closing of the Initial Offering. Indemnification for any unknown environmental liabilities will be limited to liabilities due to occurrences on or before the closing of the Initial Offering and identified prior to the fifth anniversary of the closing of the Initial Offering, and will be subject to an aggregate deductible of \$500,000 before we are entitled to indemnification for losses incurred. Any other liabilities for which MPC has agreed to indemnify us are not subject to a deductible before we are entitled to indemnification. There is no limit on the amount for which MPC has agreed to indemnify us under the omnibus agreement once we meet the deductible, if applicable. Neither we nor our general partner have any contractual obligation to investigate or identify any such unknown environmental liabilities. We have agreed to indemnify MPC for events and conditions associated with the ownership or operation of our assets due to occurrences after the closing of the Initial Offering and for environmental liabilities associated with or arising from our ownership or operation of the assets on or after the closing of the Initial Offering, in each case, to the extent MPC is not required to indemnify us for such liabilities. MPLX Pipe Line Holdings LLC ("Pipe Line Holdings"), has agreed to indemnify MPC for events and conditions associated with the operations of the Pipe Line Holdings assets that occur after the closing of the Initial Offering. Liabilities for which we and Pipe Line Holdings have agreed to indemnify MPC pursuant to the omnibus agreement are not subject to a deductible before MPC is entitled to indemnification. There is no limit on the amount for which we or Pipe Line Holdings has agreed to indemnify MPC under the omnibus agreement.

Hazardous Substances and Wastes

A comprehensive framework of environmental laws and regulations governs our operations as they relate to the possible release of hazardous substances or non-hazardous or hazardous wastes into soils, groundwater and surface water and measures taken to mitigate pollution into the environment. The Comprehensive Environmental Response, Compensation, and Liability Act, as amended ("CERCLA"), also known as the "Superfund" law, as well as comparable state laws, impose liability without regard to fault or the legality of the original conduct on certain classes of persons who are considered to be responsible for the release of a hazardous substance into the environment. These persons include current and prior owners or operators of a site where a release occurred and companies that transported or disposed or arranged for the transport or disposal of the hazardous substances released from the site. Under CERCLA, these persons may be subject to strict joint and several liability for the costs of removing or remediating hazardous substances that have been released into the environment and for restoration costs and damages to natural resources. Additionally, neighboring landowners and other third parties can file claims for personal injury and property damage allegedly caused by hazardous substances or other pollutants released into the environment. While we generate materials in the course of our operations that may be

regulated as hazardous substances under CERCLA or similar state statutes, we do not believe that we have any current material liability for cleanup costs under such laws or for third-party claims. We also may incur liability under the Resource Conservation and Recovery Act, as amended ("RCRA"), and comparable or more stringent state statutes, which impose requirements relating to the handling and disposal of non-hazardous and hazardous wastes. In the course of our operations, we generate some amount of ordinary industrial wastes, such as paint wastes, waste solvents and waste oils that may be regulated as hazardous wastes. It is possible that some wastes generated by us that are currently classified as non-hazardous wastes may in the future be designated as hazardous wastes, resulting in the wastes being subject to more rigorous and costly transportation, storage, treatment and disposal requirements.

We currently own or lease, and have in the past owned or leased, properties that have been used over the years for natural gas gathering, processing and transportation, for NGL fractionation or for the storage, gathering and transportation of crude oil. Although waste disposal practices within the NGL industry and other oil and natural gas related industries have been enhanced and improved over the years, it is possible that petroleum hydrocarbons and other non-hazardous or hazardous wastes may have been disposed of by prior owners or operators on or under these various properties owned or leased by us during the operating history of those facilities. These properties and wastes disposed thereon may be subject to CERCLA, RCRA and analogous state laws. Under these laws, we could be required to remove or remediate previously disposed wastes or property contamination, including groundwater contamination, or to perform remedial operations to prevent future contamination.

Ongoing Remediation and Indemnification from Third Parties

The prior third-party owner or operator of our Cobb, Boldman, Kenova, Kermit and Majorsville facilities, has been, or is currently involved in, certain investigatory or remedial activities with respect to the real property underlying these facilities. The third party or, in the case of the Kermit Complex, its successor in interest, has accepted sole liability and responsibility for, and indemnifies us against those activities or any other environmental condition related to the real property prior to the effective dates of our lease or purchase of the real property that are not contributed to by us. In addition, the third party, or in the case of the Kermit Complex, its successor in interest, has agreed to perform all the required response actions at its expense in a manner that minimizes interference with our use of the properties. We understand that to date, all required actions have been or are being performed and, accordingly, we do not believe that the remediation obligation of these properties will have a material adverse impact on our financial condition or results of operations.

The prior third-party owner and/or operator of certain facilities on the real property on which our rail facility is constructed near Houston, Pennsylvania has been, or is currently involved in, investigatory or remedial activities related to acid mine drainage ("AMD") with respect to the real property underlying these facilities. These investigatory and remedial obligations arise out of an arrangement entered into between the Pennsylvania Department of Environmental Protection and the third party, which has accepted liability and responsibility for, and indemnifies us against, any environmental liabilities associated with the AMD that are not exacerbated by us in connection with our operations. In addition, the third party has agreed to perform all of the required response actions at its expense in a manner that minimizes interference with our use of the property. We understand that to date, all actions required under these agreements have been or are being performed and, accordingly, we do not believe that the remediation obligation of these properties will have a material adverse impact on our financial condition or results of operations.

We are also entitled to indemnification from MPC for assets we acquired from MPC in our Initial Offering, as further described above under "General". In addition, from time to time, we have acquired, and we may acquire in the future, facilities from third parties or MPC that previously have been or currently are the subject of investigatory, remedial or monitoring activities relating to environmental matters. The terms of each acquisition will vary, and in some cases we may receive contractual indemnification from the prior owner or operator for some or all of the liabilities relating to such matters, and in other cases we may agree to accept some or all of

such liabilities. We do not believe that the portion of any such liabilities that MPLX may bear with respect to any such properties previously acquired by MPLX will have a material adverse impact on our financial condition or results of operations.

Water Discharges

Our operations can result in the discharge of pollutants, including crude oil and refined products. Regulations under the Water Pollution Control Act of 1972 ("Clean Water Act"), Oil Pollution Act of 1990 ("OPA-90") and analogous state laws impose restrictions and controls on the discharge of pollutants into federal and state waters. Such discharges are prohibited, except in accord with the terms of a permit issued by the EPA or the analogous state agency. Spill prevention, control and countermeasure requirements under federal law and some state laws require appropriate containment berms and similar structures to help prevent the contamination of navigable waters in the event of a hydrocarbon tank spill, oil overflow, rupture or leak. For example, the Clean Water Act requires us to maintain Spill Prevention Control and Countermeasure ("SPCC") plans at many of our facilities. We maintain numerous discharge permits for facilities and vessels as required under the National Pollutant Discharge Elimination System program of the Clean Water Act and have implemented systems to oversee our compliance efforts. Any unpermitted release of pollutants, including oil, NGLs or condensates, could result in administrative, civil and criminal penalties as well as significant remedial obligations. In addition, the Clean Water Act and analogous state law may also require individual permits or coverage under general permits for discharges of storm water from certain types of facilities, but these requirements are subject to several exemptions specifically related to oil and natural gas operations and facilities. The Clean Water Act also prohibits the discharge of dredge and fill material in regulated waters, including wetlands, unless authorized by a permit. We conduct regular review of the applicable laws and regulations, and maintain discussions with the various federal, state and local agencies with regard to the application of those laws and regulations to our facilities, including the permitting process and categories of applicable permits for storm water or other discharges, stream crossings and wetland disturbances that may be required for the construction or operation of certain of our facilities in the various states.

In addition, the transportation and storage of crude oil and refined products over and adjacent to water involves risk and subjects us to the provisions of OPA-90 and related state requirements. Among other requirements, OPA-90 requires the owner or operator of a tank vessel, a facility or a pipeline to maintain an emergency plan to respond to releases of oil or hazardous substances. Also, in case of any such release, OPA-90 requires the responsible company to pay resulting removal costs and damages. OPA-90 also provides for civil penalties and imposes criminal sanctions for violations of its provisions. We operate facilities at which releases of oil and hazardous substances could occur. We have implemented emergency oil response plans for all of our components and facilities covered by OPA-90 and we have established SPCC plans for facilities subject to Clean Water Act SPCC requirements.

Construction or maintenance of our plants, compressor stations, pipelines, barge dock and storage facilities may impact wetlands, which are also regulated under the Clean Water Act by the EPA, the United States Army Corps of Engineers and state water quality agencies. Regulatory requirements governing wetlands (including associated mitigation projects) may result in the delay of our projects while we obtain necessary permits and may increase the cost of new projects and maintenance activities. We believe that we are in substantial compliance with the Clean Water Act and analogous state laws. However, there is no assurance that we will not incur material increases in our operating costs or delays in the construction or expansion of our facilities because of future developments, the implementation of new laws and regulations, the reinterpretation of existing laws and regulations, or otherwise, including, for example, increased construction activities, potential inadvertent releases arising from pursuing borings for pipelines, and earth slips due to heavy rain and/or other causes.

Air Emissions

The Clean Air Act and comparable state laws restrict the emission of air pollutants from many sources, including processing plants and compressor stations, and also impose various monitoring and reporting requirements.

These laws and any implementing regulations may require us to obtain pre-approval for the construction or modification of certain projects or facilities expected to produce or significantly increase air emissions, obtain and strictly comply with stringent air permit requirements, utilize specific equipment or technologies to control emissions, or aggregate two or more of our facilities into one application for permitting purposes. We believe that our operations are in substantial compliance with applicable air permitting and control technology requirements. However, we may be required to incur capital expenditures in the future for installation of air pollution control equipment and encounter construction or operational delays while applying for, or awaiting the review, processing and issuance of new or amended permits, and we may be required to modify certain of our operations which could increase our operating costs. For example, the EPA issued final regulations in October 2015 to revise the National Ambient Air Quality Standard for ozone to 70 parts per billion for both the eight-hour primary and secondary standards protective of public health and public welfare. In actions dated April 30, 2018, and July 25, 2018, the EPA finalized nonattainment designations for certain areas under the lower primary ozone standard. For areas designated nonattainment, states will be required to adopt State Implementation Plans ("SIPs") for nonattainment areas. These SIPs may include NOx and/or VOC reductions that could result in increased costs to us or our customers. We cannot predict the effects of the various SIPs requirements at this time. In 2016, the EPA promulgated regulation regarding performance standards for methane emissions from new and modified oil and gas production and natural gas processing and transmission facilities, which could require additional capital expenditures, increase our operating costs or otherwise restrict our operations. In September 2018, the EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that are meant to streamline implementation of the rules. Additionally, the EPA finalized regulations to revise existing refinery air emissions standards, which require additional controls, lower emission standards and require ambient air monitoring. These revised refinery standards affect refineries, including MPC's refineries from which we receive significant revenues. To the extent capital expenditures required to comply with new legislative and regulatory requirements have a material effect on MPC or our other customers, they could have a material effect on our business and results of operations.

Climate Change

As a consequence of an EPA administrative conclusion that emissions of carbon dioxide, methane and other greenhouse gases ("GHGs") into the ambient air endangers public health and welfare, the EPA adopted regulations establishing the Prevention of Significant Deterioration ("PSD") construction and Title V operating permit programs for GHG emissions from certain large stationary sources that already are potential major sources of certain principal, or criteria, pollutant emissions. Although the EPA's PSD and Title V permit programs are limited to large stationary sources of criteria pollutant emissions, states may seek to adopt their own permitting programs under state laws that require permit reviews of large stationary sources emitting only GHGs. If we were to become subject to Title V and PSD permitting requirements due to non-GHG criteria pollutants, or if the EPA implemented more stringent permitting requirements relating to GHG emissions without regard to non-GHG criteria pollutants, or if states adopt their own permitting programs that require permit reviews based on GHG emissions, we may be required to install "best available control technology," to the extent such technology is available, to limit emissions of GHGs from any new or significantly modified facilities that we may seek to construct in the future. In addition, we may experience substantial delays or possible curtailment of construction or projects in connection with applying for, obtaining or maintaining preconstruction and operating permits, we may encounter limitations on the design capacities or size of facilities, and we may incur material increases in our construction and operating costs. We are monitoring GHG emissions from certain of our facilities in accordance with current GHG emissions reporting requirements in a manner that we believe is in substantial compliance with applicable reporting obligations.

Also, Congress has from time to time considered legislation to reduce emissions of GHGs, and it is possible that such legislation could be enacted in the future. In the absence of federal climate legislation in the United States, a number of state and regional efforts have emerged that are aimed at tracking and/or reducing GHG emissions by means of cap and trade programs that typically require major sources of GHG emissions, such as electric power plants, to acquire and surrender emission allowances in return for emitting those GHGs. Although it is not

possible at this time to predict how legislation or new regulations that may be adopted to address GHG emissions would impact our business, any such future laws and regulations could require us to incur increased operating costs, such as costs to purchase and operate emissions control systems, to acquire emission allowances or comply with new regulatory or reporting requirements including the imposition of a carbon tax. The EPA's 2016 New Source Performance Standards for the oil and gas industry are aimed at minimizing fugitive emissions and establishing methane emission standards for new and modified oil and gas production and natural gas processing and transmission facilities as part of the former Administration's efforts to reduce methane emissions from the oil and gas sector by up to 45 percent from 2012 levels by 2025. This rule is currently being challenged in court by various affected states, and the EPA continues to review and consider further changes to these standards. Any such legislation or regulatory programs could also increase the cost of consuming, and thereby reduce demand for, oil and natural gas produced by our exploration and production customers that, in turn, could reduce the demand for our services and thus adversely affect our cash available for distribution to our unitholders.

Endangered Species Act and Migratory Bird Treaty Act Considerations

The federal Endangered Species Act ("ESA") and analogous state laws regulate activities that may affect endangered or threatened species, including their habitats. If protected species are located in areas where we propose to construct new gathering or transportation pipelines, processing or fractionation facilities, or other infrastructure, such work could be prohibited or delayed in certain of those locations or during certain times, when our operations could result in a taking of the species or destroy or adversely modify critical habitat that has been designated for the species. We also may be obligated to develop plans to avoid potential takings of protected species and provide mitigation to offset the effects of any unavoidable impacts, the implementation of which could materially increase our operating and capital costs. Existing laws, regulations, policies and guidance relating to protected species may also be revised or reinterpreted in a manner that further increases our construction and mitigation costs or restricts our construction activities. Additionally, construction and operational activities could result in inadvertent impact to a listed species and could result in alleged takings under the ESA, exposing MPLX to civil or criminal enforcement actions and fines or penalties. Moreover, as a result of a settlement approved by the United States District Court for the District of Columbia in September 2011, the United States Fish and Wildlife Service ("FWS") is required to make a determination on listing numerous species as endangered or threatened under the ESA by completion of the agency's 2017 fiscal year. For example, in April 2015, the FWS published a final rule listing the Northern Long Eared Bat as threatened under the ESA. In another example, in September 2016, the FWS announced the listing of the Eastern Massasauga rattlesnake as a threatened species under the ESA. In addition, in January 2017, FWS issued a final rule listing the rusty patched bumblebee as an endangered species effective in February 2017. All of these species, along with the other endangered species such as the Indiana Bat and American Burying Beetle, are in areas in which we operate. The listing of these or other species as threatened or endangered in areas where we conduct operations or plan to construct pipelines or facilities may cause us to incur increased costs arising from species protection measures or could result in delays in, or prohibit, the construction of our facilities or limit our customer's exploration and production activities, which could have an adverse impact on demand for our midstream operations.

The Migratory Bird Treaty Act implements various treaties and conventions between the United States and certain other nations for the protection of migratory birds. In accordance with this law, the taking, killing or possessing of migratory birds covered under this act is unlawful without authorization. If there is the potential to adversely affect migratory birds as a result of our operations or construction activities, we may be required to seek authorization to conduct those operations or construction activities, which may result in specified operating or construction restrictions on a temporary, seasonal, or permanent basis in affected areas and thus have an adverse impact on our ability to provide timely gathering, processing or fractionation services to our exploration and production customers.

Safety Matters

Our assets are subject to increasingly strict safety laws and regulations. The transportation and storage of natural gas and crude oil and refined products involve a risk that hazardous liquids may be released into the environment, potentially causing harm to the public or the environment. In turn, such incidents may result in substantial expenditures for response actions, significant government penalties, liability to government agencies for natural resources damages and significant business interruption. The DOT has adopted safety regulations with respect to the design, construction, operation, maintenance, inspection and management of our pipeline assets. These regulations contain requirements for the development and implementation of pipeline integrity management programs, which include the inspection and testing of pipelines and the correction of anomalies. These regulations also require that pipeline operation and maintenance personnel meet certain qualifications and that pipeline operators develop comprehensive spill response plans.

Regulation

We are subject to regulation by the DOT under the Hazardous Liquid Pipeline Safety Act of 1979, also known as the HLPSA. The HLPSA delegated to the DOT the authority to develop, prescribe and enforce minimum federal safety standards for the transportation of hazardous liquids by pipeline. Congress also enacted the Pipeline Safety Act of 1992, also known as the PSA, which added the environment to the list of statutory factors that must be considered in establishing safety standards for hazardous liquid pipelines, required regulations be issued to define the term "gathering line" and establish safety standards for certain "regulated gathering lines," and mandated that regulations be issued to establish criteria for operators to use in identifying and inspecting pipelines located in High Consequence Areas ("HCAs"), defined as those areas that are unusually sensitive to environmental damage, that cross a navigable waterway, or that have a high population density. In 1996, Congress enacted the Accountable Pipeline Safety and Partnership Act, also known as the APSPA, which limited the operator identification requirement mandate to pipelines that cross a waterway where a substantial likelihood of commercial navigation exists, required that certain areas where a pipeline rupture would likely cause permanent or long-term environmental damage be considered in determining whether an area is unusually sensitive to environmental damage, and mandated that regulations be issued for the qualification and testing of certain pipeline personnel. In the Pipeline Inspection, Protection, Enforcement, and Safety Act of 2006, also known as the PIPES Act, Congress required mandatory inspections for certain U.S. crude oil and natural gas transmission pipelines in HCAs and mandated that regulations be issued for low-stress hazardous liquid pipelines and pipeline control room management. We are also subject to the Pipeline Safety, Regulatory Certainty and Job Creation Act of 2011, which reauthorized funding for federal pipeline safety programs through 2015, increased penalties for safety violations, established additional safety requirements for newly constructed pipelines and required studies of certain safety issues that could result in the adoption of new regulatory requirements for existing pipelines.

The DOT has delegated its authority under these statutes to the PHMSA, which administers compliance with these statutes and has promulgated comprehensive safety standards and regulations for the transportation of natural gas by pipeline (49 C.F.R. Part 192), as well as hazardous liquids by pipeline (49 C.F.R. Part 195), including regulations for the design and construction of new pipelines or those that have been relocated, replaced or otherwise changed (Subparts C and D of 49 C.F.R., Part 195); pressure testing of new pipelines (Subpart E of 49 C.F.R. Part 195); operation and maintenance of pipelines, including inspecting and reburying pipelines in the Gulf of Mexico and its inlets, establishing programs for public awareness and damage prevention, managing the integrity of pipelines in HCAs and managing the operation of pipeline control rooms (Subpart F of 49 C.F.R. Part 195); protecting steel pipelines from the adverse effects of internal and external corrosion (Subpart H of 49 C.F.R. Part 195); and integrity management requirements for pipelines in HCAs (49 C.F.R. 195.452). PHMSA has undertaken a number of initiatives to reevaluate its pipeline safety regulations. We do not anticipate that we would be impacted by these regulatory initiatives to any greater degree than other similarly situated competitors.

Pipeline Control and Monitoring

The majority of our pipelines are operated from central control rooms. These control centers operate with a SCADA (supervisory control and data acquisition) system equipped with computer systems designed to continuously monitor operational data. Monitored data includes pressures, temperatures, gravities, flow rates and alarm conditions. These systems include real-time transient leak detection system monitors throughput and alarms if pre-established operating parameters are exceeded. These control centers operate remote pumps, motors and valves associated with the receipt and delivery of products, and provide for the remote-controlled shutdown of pump stations on the pipelines. These systems also include fully functional back-up operations maintained and routinely operated throughout the year to ensure safe and reliable operations.

We monitor the structural integrity of our pipelines through a program of periodic internal assessments using high resolution internal inspection tools, as well as hydrostatic testing and direct assessment, that conform to federal standards. We accompany these assessments with a review of the data and repair anomalies, as required, to ensure the integrity of the pipeline. We then utilize sophisticated risk algorithms and a comprehensive data integration effort to ensure that the highest risk pipelines receive the highest priority for scheduling subsequent integrity assessments. We use external coatings and impressed current cathodic protection systems to protect against external corrosion. We conduct all cathodic protection work in accordance with National Association of Corrosion Engineers standards. We continually monitor, test and record the effectiveness of these corrosion inhibiting systems.

Pipeline Permitting

Pipeline construction and expansion is subject to government permitting and involves numerous regulatory environmental, political and legal uncertainties, most of which are beyond our control. We believe our operations are in substantial compliance with our permits.

Facility Safety

At manned facilities, the workplaces associated with the processing and storage facilities and the pipelines we operate are also subject to oversight pursuant to the federal Occupational Safety and Health Act, as amended ("OSHA"), as well as comparable state statutes that regulate the protection of the health and safety of workers. In addition, the OSHA hazard-communication standard requires that we maintain information about hazardous materials used or produced in operations, and that this information be provided to employees, state and local government authorities and citizens. We believe that we have conducted our operations in substantial compliance with OSHA requirements, including general industry standards, record-keeping requirements and monitoring of occupational exposure to regulated substances.

At unmanned facilities, the EPA's Risk Management Planning requirements at regulated facilities are intended to protect the safety of the surrounding public. The application of these regulations, which are often unclear, can result in increased compliance expenditures.

In general, we expect industry and regulatory safety standards to become stricter over time, resulting in increased compliance expenditures. While these expenditures cannot be accurately estimated at this time, we do not expect such expenditures will have a material adverse effect on our results of operations.

Notwithstanding the foregoing, PHMSA and one or more state regulators have, in isolated circumstances in the past, sought to expand the scope of their regulatory inspections to include certain in-plant equipment and pipelines found within NGL fractionation facilities and associated storage facilities in order to assess compliance with hazardous liquids pipeline safety requirements. If any of these actions were made broadly enforceable as part of a rule-making process or codified into law, they could result in additional capital costs, possible operational delays and increased costs of operation.

Product Quality Standards

Refined products and other hydrocarbon-based products that we transport are generally sold by us or our customers for consumption by the public. Various federal, state and local agencies have the authority to prescribe product quality specifications for products. The EPA established sulfur specifications for natural gasoline sold as certified ethanol denaturant effective January 1, 2017. The EPA has also proposed product quality specification for natural gasoline used for blendstock in ethanol flex fuel. The EPA has also established product quality specifications related to butane blending, which we perform at certain of our light products storage facilities. Changes in product quality specifications or blending requirements could reduce our throughput volumes, require us to incur additional handling costs or require capital expenditures. For example, different product specifications for different markets affect the fungibility of the products in our system and could require the construction of additional storage. In addition, changes in the product quality of the products we receive on our product pipelines could reduce or eliminate our ability to blend products.

EMPLOYEES

We are managed and operated by the board of directors and executive officers of MPLX GP LLC ("MPLX GP"), our general partner. Our general partner has the sole responsibility for providing the employees and other personnel necessary to conduct our operations. All of the employees that conduct our business are directly employed by affiliates of our general partner. Our general partner and its affiliates have approximately 4,500 full-time employees that provide services to us under our employee services agreements. We believe that our general partner and its affiliates have a satisfactory relationship with those employees.

AVAILABLE INFORMATION

General information about MPLX LP and our general partner, MPLX GP, including Governance Principles, Audit Committee Charter, Conflicts Committee Charter and Certificate of Limited Partnership, can be found at www.mplx.com. In addition, our Code of Business Conduct and Code of Ethics for Senior Financial Officers are available in this same location.

MPLX LP uses its website, www.mplx.com, as a channel for routine distribution of important information, including news releases, analyst presentations and financial information. Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q and Current Reports on Form 8-K, as well as any amendments and exhibits to those reports, are available free of charge through our website as soon as reasonably practicable after the reports are filed or furnished with the SEC, or on the SEC's website at www.sec.gov. These documents are also available in hard copy, free of charge, by contacting our Investor Relations office. In addition, our website allows investors and other interested persons to sign up to automatically receive email alerts when we post news releases and financial information on our website. Information contained on our website is not incorporated into this Annual Report on Form 10-K or other securities filings.

Item 1A. Risk Factors

You should carefully consider each of the following risks and all the other information set forth elsewhere in this Annual Report on Form 10-K in evaluating us and our common units. Some of these risks relate principally to our business, the business and operations of MPC and the industry in which we operate, while others relate principally to tax matters, ownership of our common units and the securities markets generally.

Our business, financial condition, results of operations or cash flows could be materially and adversely affected by these risks, and, as a result, the trading price of our common units could decline.

Risks Relating to Our Business

Our substantial debt and other financial obligations could impair our financial condition, results of operations and cash flow, and our ability to fulfill our debt obligations.

We have significant debt obligations, which totaled \$13.9 billion as of December 31, 2018. We may incur significant debt obligations in the future, including under our loan agreement with MPC. Our existing and future indebtedness may impose various restrictions and covenants on us that could have, or the incurrence of such debt could otherwise result in, material adverse consequences, including:

- We may have difficulties obtaining additional financing for working capital, capital expenditures, acquisitions, or general business purposes on favorable terms, if at all, or our cost of borrowing may increase. Our funds available for operations, business opportunities and distributions to unitholders will also be reduced by that portion of our cash flow required to make interest payments on our debt.
- We may be at a competitive disadvantage compared to our competitors who have proportionately less debt, or we may be more vulnerable to, and have limited flexibility to respond to, competitive pressures or a downturn in our business or the economy generally.
- If our operating results are not sufficient to service our indebtedness, we may be required to reduce our distributions, reduce or delay our business activities, investments or capital expenditures, sell assets or issue equity, which could materially and adversely affect our financial condition, results of operations, cash flows and ability to make distributions to unitholders, as well as the trading price of our common units.
- The operating and financial restrictions and covenants in our revolving credit facility and any future financing agreements could restrict our ability to finance our operations or capital needs or to expand or pursue our business activities, which may, in turn, limit our ability to make distributions to our unitholders. Our ability to comply with these covenants may be impaired from time to time if the fluctuations in our working capital needs are not consistent with the timing for our receipt of funds from our operations.
- If we fail to comply with our debt obligations and an event of default occurs, our lenders could declare the
 outstanding principal of that debt, together with accrued interest, to be immediately due and payable, which
 may trigger defaults under our other debt instruments or other contracts. Our assets may be insufficient to
 repay such debt in full, and the holders of our units could experience a partial or total loss of their
 investment.

A significant decrease or delay in oil and natural gas production in our areas of operation, whether due to sustained declines in oil, natural gas and NGL prices, natural declines in well production, or otherwise, may adversely affect our revenues, financial condition, and cash available for distribution.

A significant portion of our operations are dependent upon production from oil and natural gas reserves and wells owned by our producer customers, which will naturally decline over time, which means that our cash flows associated with these wells will also decline over time. To maintain or increase throughput levels and the utilization rate of our facilities, we must continually obtain new oil, natural gas, NGL and refined product supplies, which depend in part on the level of successful drilling activity near our facilities.

We have no control over the level of drilling activity in the areas of our operations, the amount of reserves associated with the wells or the rate at which production from a well will decline. In addition, we have no control over producers or their production decisions, which are affected by, among other things, prevailing and projected energy prices, drilling costs per mcf or barrel, demand for hydrocarbons, operational challenges, access to downstream markets, the level of reserves, geological considerations, governmental regulations and the availability and cost of capital. Because of these factors, even if new oil or natural gas reserves are discovered in areas served by our assets, producers may choose not to develop those reserves. If we are not able to obtain new supplies of oil or natural gas to replace the natural decline in volumes from existing wells, throughput on our pipelines and the utilization rates of our facilities would decline, which could have a material adverse effect on our business, results of operations and financial condition and could reduce our ability to make distributions to our unitholders.

Decreases in energy prices can decrease drilling activity, production rates and investments by third parties in the development of new oil and natural gas reserves. The prices for oil, natural gas and NGLs depend upon factors beyond our control, including global and local demand, production levels, changes in interstate pipeline gas quality specifications, imports and exports, seasonality and weather conditions, economic and political conditions domestically and internationally and governmental regulations. Sustained periods of low prices could result in producers also significantly curtailing or limiting their oil and gas drilling operations which could substantially delay the production and delivery of volumes of oil, gas and NGLs to our facilities and adversely affect our revenues and cash available for distribution. This impact may also be exacerbated due to the extent of our commodity-based contracts, which are more directly impacted by changes in gas and NGL prices than our fee-based contracts due to frac spread exposure and may result in operating losses when natural gas becomes more expensive on a Btu equivalent basis than NGL products. In addition, our purchase and resale of gas and NGLs in the ordinary course exposes us to significant risk of volatility in gas or NGL prices due to the potential difference in the time of the purchases and sales and the potential difference in the price associated with each transaction, and direct exposure may also occur naturally as a result of our production processes. The significant volatility in natural gas, NGL and oil prices could adversely impact our unit price, thereby increasing our distribution yield and cost of capital. Such impacts could adversely impact our ability to execute our long-term organic growth projects, satisfy our obligations to our customers, and make distributions to unitholders at intended levels, and may also result in non-cash impairments of long-lived assets or goodwill or other-thantemporary non-cash impairments of our equity method investments.

Global economic conditions may have adverse impacts on our business and financial condition and adversely impact our ability to access capital markets on acceptable terms.

Changes in economic conditions could adversely affect our financial condition and results of operations. A number of economic factors, including, but not limited to, gross domestic product, consumer interest rates, government spending, consumer confidence and debt levels, retail trends, inflation, tariffs, trade agreements and foreign currency exchange rates, may generally affect our business. Recessionary economic cycles, higher unemployment rates, higher fuel and other energy costs and higher tax rates may adversely affect demand for natural gas, NGLs and crude oil. Also, any tightening of the capital markets could adversely impact our ability to execute our long-term organic growth projects and meet our obligations to our customers and limit our ability to raise capital and, therefore, have an adverse impact on our ability to otherwise take advantage of business opportunities or react to changing economic and business conditions. These factors could have a material adverse effect on our revenues, income from operations, cash flows and our quarterly distribution on our common units.

Our business plan and growth strategy may require access to new capital. An increased cost of capital could impair our ability to grow, our ability to make distributions to unitholders at our intended levels and trigger us to impair our goodwill and intangible assets.

Our ability to successfully operate our business, generate sufficient cash to pay the quarterly cash distributions to our unitholders and to allow for growth of our business and the growth of our distributions is subject to a number

of risks and uncertainties, including economic and competitive factors beyond our control, which may impair our access to new capital. If the cost of capital becomes too expensive, we may not be able to raise the necessary funds from the capital markets on satisfactory terms, if at all. We may be required to consider alternative financing strategies such as the formation of joint ventures or the sale of non-strategic assets, which may not provide the necessary capital, and our ability to develop or acquire strategic and accretive assets and finance growth projects will be limited. Factors that influence our cost of capital include market conditions, including our common unit price and the resultant distribution yield. A significant decline in oil prices can impact our common unit price. When the price of our common units decreases, the resultant distribution yield increases, and our cost of capital increases accordingly. A significant drop in our unit price could also trigger an impairment of our goodwill and intangible assets.

We may not have sufficient cash from operations after the establishment of cash reserves and payment of our expenses, including cost reimbursements to MPC and its affiliates, to enable us to pay the minimum quarterly distribution to our unitholders.

We may not have sufficient available cash from operating surplus each quarter to enable us to pay the minimum quarterly distribution to our unitholders. The amount of cash we can distribute on our common units depends principally on the amount of cash we generate from our operations, which may fluctuate from quarter to quarter based on, among other things:

- the fees and tariff rates we charge and the margins we realize for our services and sales;
- the prices of, level of production of and demand for oil, natural gas, NGLs and refined products;
- the volumes of natural gas, crude oil, NGLs and refined products we gather, process, store, transport and fractionate;
- the level of our operating costs including repairs and maintenance;
- the relative prices of NGLs and crude oil, which impact the effectiveness of our hedging program; and
- prevailing economic conditions.

In addition, the actual amount of cash available for distribution may depend on other factors, some of which are beyond our control, including:

- the amount of our operating expenses and general and administrative expenses, including cost reimbursements to MPC in respect of those expenses;
- our debt service requirements and other liabilities;
- fluctuations in our working capital needs;
- our ability to borrow funds and access capital markets;
- restrictions in our joint venture agreements, revolving credit facility or other agreements governing our debt;
- the level and timing of capital expenditures we make, including capital expenditures incurred in connection with our enhancement projects;
- the cost of acquisitions, if any; and
- the amount of cash reserves established by our general partner in its discretion.

In an effort to fund a greater portion of our organic growth with retained cash, the amount of cash reserves established by our general partner may increase in the future, which in turn may further reduce the amount of cash available for distribution.

Our inability, or limited ability, to control certain aspects of management of joint venture legal entities in which we have a partial ownership interest means that we may be unable to control, and may not receive, the amount of

cash we expect to be distributed to us, which could adversely affect our ability to pay the minimum quarterly distribution to our unitholders. In addition, for entities where we have a noncontrolling ownership interest, or for entities that we operate but in which the noncontrolling interest owners have participative rights, we will be unable to control ongoing operational or other decisions, including the incurrence of capital expenditures that we may be required to fund, the incurrence of debt, or the pursuit of certain projects that we may want to pursue. Certain of our joint venture partners have the option to not make, or may otherwise cease making, capital contributions, so we may be required to fully fund capital or operating expenditures for the joint venture. For joint ventures we operate, we may not receive adequate reimbursement for all of the expenditures we incur to operate the joint venture.

Furthermore, the amount of cash we have available for distribution depends primarily on our cash flow and not solely on profitability, which is affected by non-cash items. As a result, we may make distributions during periods when we record net losses and may not make distributions during periods when we record net income.

Our expansion of existing assets and the construction of new assets will be subject to regulatory, environmental, political, legal and economic risks that could adversely impact our business, financial condition, results of operations and cash flows.

One of the ways we intend to grow our business is through the construction of, or additions to, our existing gathering, transportation, treating, processing, storage and fractionation facilities. We may also grow our business by constructing new pipelines or expanding existing pipelines by adding horsepower or pump stations or by adding additional pipelines along existing pipelines. Such construction requires the expenditure of significant amounts of capital, which may exceed our expectations, and involves numerous regulatory, environmental, political and legal uncertainties, most of which are beyond are control. Factors beyond our control include delays caused by third-party landowners, unavailability of materials, labor disruptions, environmental constraints, financing, accidents, weather and other factors. Additionally, we are subject to numerous regulatory, environmental, political, legal and inflationary uncertainties, including societal sentiment regarding the development and use of carbon-based fuels, political pressures and the influence of environmental or other special interest groups, as well as stringent and lengthy federal, state and local permitting, zoning, consent, or authorizations requirements, or new laws, regulations, requirements or enforcement actions, which may cause us to incur additional capital expenditures, delay, interfere with or impair our construction activities, including by requiring the redesign of facilities, the acquisition of additional equipment, and relocations or rerouting of facilities, and subject us to additional expenses or penalties and adversely affect our operations and cash flows available for distribution to unitholders. The approval process for storage and transportation projects has become increasingly challenging, due in part to state and local concerns related to pipelines, negative public perception regarding the oil and gas industry, and concerns regarding greenhouse gas emissions downstream of pipeline operations. If we undertake these projects, we may not be able to complete them on schedule, or at all, or at the budgeted cost. We also may be required to incur additional costs and expenses in connection with the design and installation of our facilities due to their location and the surrounding terrain. We may be required to install additional facilities, incur additional capital and operating expenditures, or experience interruptions in or impairments of our operations to the extent that the facilities are not designed or installed correctly.

For example, certain of our processing, fractionation and pipeline facilities are located in mountainous areas such as our Utica, Marcellus and southern Appalachian operations, which may require specially designed foundations, retaining walls and other structures or facilities. If such foundations, retaining walls or other facilities are not designed or installed correctly, do not perform as intended or fail, we may be required to incur significant capital expenditures to correct or repair the deficiencies, or may incur significant damage to or loss of facilities, and our operations may be interrupted as a result of deficiencies or failures. In addition, such deficiencies may cause damages to the surrounding environment, including slope failures, stream impacts and other natural resource damages, and we may as a result also be subject to increased operating expenses or environmental penalties and fines. In addition, certain agreements with our customers contain substantial financial penalties and/or give the producer the right to repurchase certain assets and terminate their contracts with us if construction deadlines are

not achieved. Any such penalty or contract termination could have a material adverse effect on our income from operations and cash available for distribution.

Moreover, our revenues may not increase immediately upon the expenditure of funds on a particular project. For instance, if we build a new pipeline, the construction may occur over an extended period of time, and we may not receive any material increases in revenues until after completion of the project, if at all.

We may not always be able to accurately estimate hydrocarbon reserves and expected production volumes; therefore, volumes we service in the future could be less than we anticipate.

We work closely with our producer customers in an effort to understand hydrocarbon reserves and expected production volumes. We periodically review or have outside consultants review hydrocarbon reserve information and expected production data that is publicly available or that is provided to us by our producer customers. However, we may not be able to accurately estimate hydrocarbon reserves and production volumes expected to be delivered to us for a variety of reasons, including the unavailability of sufficiently detailed information and unanticipated changes in producers' expected drilling schedules. Accordingly, we may not have accurate estimates of total reserves serviced by our assets, the anticipated life of such reserves or the expected volumes to be produced from those reserves.

Furthermore, we may have only limited oil, natural gas, NGL or refined product supplies committed to any new facility prior to its construction. We may construct facilities to capture anticipated future growth in production or satisfy anticipated market demand which does not materialize, the facilities may not operate as planned or may not be used at all. In order to attract additional oil, natural gas, NGL or refined product supplies from a customer, we may be required to order equipment and facilities, obtain rights of way or other land rights or otherwise commence construction activities for facilities that will be required to serve such customer's additional supplies prior to executing agreements with the customer. If such agreements are not executed, we may be unable to recover such costs and expenses. We may also rely on estimates of proved reserves in our decision to construct new pipelines and facilities, which may prove to be inaccurate because there are numerous uncertainties inherent in estimating quantities of proved reserves. As a result, new facilities may not be able to attract enough oil, natural gas, NGLs or refined products to achieve our expected investment return or result in immediate revenue increases, which could adversely affect our operations and cash available for distribution. Alternatively, oil, natural gas, NGL or refined product supplies committed to facilities under construction may be delivered prior to completion of such facilities, or we may otherwise have unexpected increase in volumes that could adversely affect our ability to expand our facilities. In such event, we may be required to temporarily utilize third-party facilities for such oil, natural gas, NGLs or refined products, which may increase our operating costs and reduce our cash available for distribution.

Due to capacity, market and other constraints relating to the growth of our business, we may experience difficulties in the execution of our business plan, which may increase our costs and reduce our revenues and cash available for distribution.

The successful execution of our business strategy is impacted by a variety of factors, including our ability to grow our business and satisfy our customers' requirements for gathering, processing, fractionation, marketing, transportation and storage services. Our ability to grow our business and satisfy our customers' requirements may be adversely affected by a variety of factors, including the following:

- more stringent permitting and other regulatory requirements;
- a limited supply of qualified fabrication and construction contractors, which could delay or increase the cost of the construction and installation of our facilities or increase the cost of operating our existing facilities;
- unexpected increases in the volume of oil, natural gas, NGLs and refined products being delivered to our facilities, which could adversely affect our ability to expand our facilities in a manner that is consistent with our customers' production or delivery schedules;

- changes in, or inability to meet, downstream gas, NGL, crude oil or refined product pipeline quality specifications, which could reduce the volumes of gas, NGLs, crude oil and refined products that we receive:
- scheduled maintenance, unexpected outages or downtime at our facilities or at upstream or downstream third-party facilities, which could reduce the volumes of oil, gas, NGLs and refined products that we receive; and
- market and capacity constraints affecting downstream oil, natural gas, NGL and refined products facilities, including limited gas and NGL capacity downstream of our facilities, limited railcar and NGL pipeline facilities and reduced demand or limited markets for certain NGL or refined products, which could reduce the volumes of oil, gas, NGLs and refined products that we receive and adversely affect the pricing received for NGLs.

If we are unable to successfully execute our business strategy, then our operating and capital expenditures may materially increase and our revenues and cash available for distribution may be adversely affected.

We engage in commodity derivative activities to mitigate the impact of commodity price volatility on our cash flows, but these activities may reduce our earnings, profitability and cash flows. In addition, we may not accurately predict future commodity price fluctuations, our risk management activities may impair our ability to benefit from price increases, and additional regulation of commodity derivative activities could adversely impact our ability to manage these risks.

Our operations expose us to fluctuations in commodity prices. We utilize derivative financial instruments related to the future price of crude oil, natural gas and certain NGLs with the intent of reducing volatility in our cash flows due to fluctuations in commodity prices.

The extent of our commodity price exposure is related largely to our contract mix and the effectiveness and scope of our derivative activities. We have a policy to enter into derivative transactions related to only a portion of the volume of our expected production or fuel requirements that are subject to commodity price volatility and, as a result, we expect to continue to have some direct commodity price exposure. Our actual future production or fuel requirements may be significantly higher or lower than we estimate at the time we enter into derivative transactions for such period. If the actual amount is higher than we estimate, we will have greater commodity price exposure than we intended. If the actual amount is lower than the amount that is subject to our derivative financial instruments, we might be forced to settle all or a portion of our derivative transactions without the benefit of the cash flow from our sale or purchase of the underlying physical commodity, which could result in a substantial diminution of our liquidity. Alternatively, we may seek to amend the terms of our derivative financial instruments, including the extension of the settlement date of such instruments. Additionally, because we may use derivative financial instruments relating to the future price of crude oil to mitigate our exposure to NGL price risk, the volatility of our future cash flows and net income may increase if there is a change in the pricing relationship between crude oil and NGLs. As a result of these factors, our risk management activities may not be as effective as we intend in reducing the downside volatility of our cash flows and, in certain circumstances, may actually increase the volatility of our cash flows. In addition, our risk management activities are subject to the risks that a counterparty may not perform its obligation under the applicable derivative instrument, the terms of the derivative instruments are imperfect and our risk management policies and procedures are not properly followed. For further information about our risk management policies and procedures, please read Item 8. Financial Statements and Supplementary Data—Note 17.

To the extent that we do not manage the commodity price risk relating to a position that is subject to commodity price risk and commodity prices move adversely, we could suffer losses. Such losses could be substantial and could adversely affect our operations and cash flows available for distribution. In addition, managing the commodity risk may actually reduce our opportunity to benefit from increases in the market or spot prices.

As a result of the Dodd-Frank Act, OTC derivatives markets and entities are subject to regulation by the Commodities Futures Trading Commission (the "CFTC"), the SEC and other regulators. The CFTC has designated certain interest rate swaps and credit default swaps for mandatory clearing and exchange trading. To the extent we engage in such transactions that are or become subject to such rules in the future, we will be required to comply or to take steps to qualify for an exemption to such requirements. Although we believe that we qualify for the end-user exception to the mandatory clearing requirements for swaps to hedge our commercial risks, the application of the mandatory clearing and trade execution requirements to other market participants may change the cost and availability of the swaps that we use for hedging. Additional mandatory clearing requirements could be imposed that may impair our ability to maintain OTC hedging positions or require us to post collateral. The Dodd-Frank Act and its implementing regulations, including those not yet finalized, could significantly increase the cost of derivative contracts, materially alter the terms of derivative contracts, reduce the availability of derivatives to protect against risks that we encounter, reduce our ability to monetize or restructure our existing derivative contracts, increase the administrative burden and regulatory risk associated with entering into certain derivative contracts, and increase our exposure to less credit-worthy counterparties. As a result, if we reduce our use of derivatives, our results of operations may become more volatile and our cash flows may be less predictable, which could adversely affect our ability to plan for and fund capital expenditures. Any of these consequences could have a material adverse effect on our income from operations and cash flows available for distribution.

Due to an increased domestic supply of NGLs, we may be required to find alternative NGL market outlets and to rely more heavily on the export of NGLs, which may increase our operating costs or reduce the price received for NGLs and thereby reduce our cash available for distribution.

Due to increased production of natural gas, particularly in shale plays, there is an increased domestic supply of NGLs, which is currently outpacing, and could continue to outpace, domestic demand. As a result, we and our producer customers may need to continue to find alternate NGL market outlets and to rely more heavily on the export of NGLs. Our ability to find alternative NGL market outlets is dependent upon a variety of factors, including the construction and installation of additional NGL transportation infrastructure necessary to transport NGLs to other markets. In order to obtain committed transportation capacity, it may be necessary to make significant minimum volume commitments, with take or pay payments or deficiency fees if the minimum volume is not delivered. In other instances, we may enter into long-term sales arrangements, and we may incur shortfall or deficiency fees or be subject to other liabilities, including breach of contract claims, if we do not deliver the contracted quantity. We market NGLs on behalf of certain of our producer customers, and as a result, we may make such commitments on behalf of those producer customers. We expect to be able to pass such commitments through to our producer customers, but if we were unable to do so, our operating costs may increase significantly, which could have a material adverse effect on our results of operations and our ability to make cash distributions. Certain of our producer customers have elected, or may from time to time in the future elect, to take in kind and market their NGLs directly, which may also impact our ability to meet any obligations we may have to deliver contracted quantities of NGLs or other commitments. Similarly, our ability to export NGLs on a competitive basis is impacted by various factors, including:

- availability of sufficient railcar, tanker and terminalling facility capacity;
- currency fluctuations;
- compliance with additional governmental regulations and maritime requirements, including U.S. export controls and foreign laws, sanctions regulations and the Foreign Corrupt Practices Act;
- · risks of loss resulting from non-payment or non-performance by international purchasers; and
- political and economic disturbances in the countries to which NGLs are being exported.

The above factors could increase our operating costs or adversely affect the price that we and our producer customers receive for NGLs, which in turn may have a material adverse effect on our volumes, revenues, income and cash available for distribution.

We depend on third parties for the oil, natural gas and refined products we gather, transport and store, the natural gas and refinery off-gas we process, and the NGLs we fractionate and stabilize at our facilities, and a reduction in these quantities could reduce our revenues and cash flow.

Although we obtain our supply of oil, natural gas, refinery off-gas, NGLs and refined products from numerous third-party producers and suppliers, a significant portion comes from a limited number of key producers/ suppliers, who are usually under no obligation to deliver a specific volume to our facilities. If these key suppliers, or a significant number of other producers, were to decrease the supply of oil, natural gas, refinery off-gas, NGLs or refined products to our systems and facilities for any reason, we could experience difficulty in replacing those lost volumes. In some cases, the producers or suppliers are responsible for gathering or delivering oil, natural gas, refinery off-gas, NGLs or refined products to our facilities or we rely on other third parties to deliver volumes to us on behalf of the producers or suppliers. If such producers, suppliers or other third parties are unable, or otherwise fail to, deliver the volumes to our facilities, or if our agreements with any of these third parties terminate or expire such that our facilities are no longer connected to their gathering or transportation systems or the third parties modify the flow of natural gas, refinery off-gas or NGLs on those systems away from our facilities, the throughput on and utilization of our facilities may be reduced, or we may be required to incur significant capital expenditures to construct and install gathering pipelines or other facilities to be able to receive such volumes. Because our operating costs are primarily fixed, a reduction in the volumes delivered to us would result not only in a reduction of revenues, but also a decline in net income and cash flow.

We may not be able to retain existing customers, or acquire new customers, which would reduce our revenues and limit our future profitability.

A significant portion of our business comes from a limited number of key customers. The renewal or replacement of existing contracts with our customers at rates sufficient to maintain current revenues and cash flows depends on a number of factors beyond our control, including competition from other gatherers, processors, pipelines and fractionators, and the price of, and demand for, natural gas, NGLs, crude oil and refined products in the markets we serve. Our competitors include large oil, natural gas, refining and petrochemical companies, some of which have greater financial resources, more numerous or greater capacity pipelines, processing and other facilities, greater access to natural gas, crude oil and NGL supplies than we do or other synergies with existing or new customers that we cannot provide. Our competitors may also include our joint venture partners, who in some cases are permitted to compete with us and may have a competitive advantage due to their familiarity with our business arising from our joint venture arrangements, as well as third parties on whom we rely to deliver natural gas, NGLs, crude oil and refined products to our facilities, who may have a competitive advantage due to their ability to modify the flow of natural gas, NGLs, crude oil and refined products on their systems away from our facilities. Additionally, our customers that gather gas through facilities that are not otherwise dedicated to us may develop their own processing and fractionation facilities in lieu of using our services.

As a consequence of the increase in competition in the industry, and the volatility of natural gas prices, end-users and utilities are reluctant to enter into long-term purchase contracts. Many end-users purchase natural gas from more than one natural gas company and have the ability to change providers at any time. Some of these end-users also have the ability to switch between gas and alternative fuels in response to relative price fluctuations in the market. Because there are numerous companies of greatly varying size and financial capacity that compete with us in the marketing of natural gas, we often compete in the end-user and utilities markets primarily on the basis of price. The inability of our management to renew or replace our current contracts as they expire and to respond appropriately to changing market conditions could affect our profitability.

The fees charged to third parties under our gathering, processing, transmission, transportation, fractionation, stabilization and storage agreements may not escalate sufficiently to cover increases in costs, or the agreements may not be renewed or may be suspended in some circumstances.

Our costs may increase at a rate greater than the fees we charge to third parties. Furthermore, third parties may not renew their contracts with us. Additionally, some third parties' obligations under their agreements with us

may be permanently or temporarily reduced due to certain events, some of which are beyond our control, including force majeure events wherein the supply of natural gas, NGLs, crude oil or refined products are curtailed or cut-off due to events outside our control, and in some cases, certain of those agreements may be terminated in their entirety if the duration of such events exceeds a specified period of time. If the escalation of fees is insufficient to cover increased costs, or if third parties do not renew or extend their contracts with us, or if third parties suspend or terminate their contracts with us, our financial results would suffer.

We are exposed to the credit risks of our key customers and derivative counterparties, and any material non-payment or non-performance by our key customers or derivative counterparties could reduce our ability to make distributions to our unitholders.

We are subject to risks of loss resulting from non-payment or non-performance by our customers, which risks may increase during periods of economic uncertainty. Furthermore, some of our customers may be highly leveraged and subject to their own operating and regulatory risks, which increases the risk that they may default on their obligations to us. This risk is further heightened during sustained periods of declines of natural gas, NGL and oil prices. With respect to our producer customers who have made acreage dedications to us, we may be exposed to additional risks to the extent that those customers become bankrupt and the acreage dedications are challenged and not upheld in bankruptcy. In addition, our risk management activities are subject to the risks that a counterparty may not perform its obligation under the applicable derivative instrument, the terms of the derivative instruments are imperfect, and our risk management policies and procedures are not properly followed. Any such material non-payment or non-performance could reduce our ability to make distributions to our unitholders.

If we are unable to make strategic acquisitions on economically acceptable terms from MPC or third parties, our ability to implement our business strategy may be impaired.

In addition to organic growth, a component of our business strategy can include the expansion of our operations through strategic acquisitions. If we are unable to make accretive strategic acquisitions from MPC or third parties that increase the cash generated from operations per unit, whether due to an inability to identify attractive acquisition candidates, to negotiate acceptable purchase contracts, or to obtain financing for these acquisitions on economically acceptable terms, then our ability to successfully implement our business strategy may be impaired.

Significant acquisitions in the future will involve the integration of new assets or businesses and present substantial risks that could adversely affect our business, financial conditions, results of operations and cash flows.

Our future growth may depend in part on our ability to integrate our future acquisitions. We cannot guarantee that we will successfully integrate assets acquired in dropdowns from MPC, or any other acquisitions, into our existing operations, or that we will achieve the desired profitability and anticipated results from such acquisitions. Failure to achieve such planned results could adversely affect our operations and cash available for distribution.

Significant acquisitions, including any potential transaction with ANDX, present potential risks including:

- inaccurate assumptions about future synergies, revenues, capital expenditures and operating costs;
- an inability to successfully integrate assets or businesses we acquire;
- a decrease in our liquidity resulting from using a portion of our available cash or borrowing capacity under our revolving credit agreement to finance transactions;
- a significant increase in our interest expense or financial leverage if we incur additional debt to finance transactions;

- the assumption of unknown environmental and other liabilities, losses or costs for which we are not indemnified or for which our indemnity is inadequate;
- the diversion of management's attention from other business concerns;
- the incurrence of other significant charges, such as impairment of goodwill or other intangible assets, asset devaluation or restructuring charges; and
- the loss of customers or key employees from the acquired businesses.

Unexpected costs and challenges may arise whenever businesses with different operations or management are combined, and we may experience unanticipated delays in realizing the benefits of an acquisition, if at all. Our capitalization and results of operation may also change significantly, and unitholders will not have the opportunity to evaluate the economic, financial and other relevant information that we may consider in determining the application of these funds and other resources.

We are indemnified for liabilities arising from an ongoing remediation of property on which certain of our facilities are located and our results of operations and our ability to make distributions to our unitholders could be adversely affected if an indemnifying party fails to perform its indemnification obligations.

The prior third-party owner or operator of our Kenova, Boldman, Cobb, Kermit and Majorsville facilities has been or is currently involved in investigatory or remedial activities with respect to the real property underlying those facilities pursuant to regulatory orders with the EPA and various state regulatory agencies. The third party or its successor in interest has agreed to retain sole liability and responsibility for, and to indemnify us against, any environmental liabilities associated with these regulatory orders or the real property underlying these facilities to the extent such liabilities arose prior to the effective date of the agreements pursuant to which such properties were acquired or leased and to the extent not contributed to by us. In addition, the previous owner and/ or operator of certain facilities on the real property on which our rail facility is constructed near Houston, Pennsylvania has been or is currently involved in investigatory or remedial activities related to AMD with respect to that real property. The third party has accepted liability and responsibility for, and has agreed to indemnify us against, any environmental liabilities associated with the AMD that are not exacerbated by us in connection with our operations. MPC has also agreed to indemnify us for certain environmental liabilities related to assets contributed to us by MPC in our Initial Offering or sold to us subsequently. Our results of operation and our ability to make cash distributions to our unitholders could be adversely affected if in the future any of these third parties fail to perform their indemnification obligations. In addition, from time to time, we have acquired, and may acquire in the future, facilities from third parties which previously have been or currently are the subject of investigatory, remedial or monitoring activities relating to environmental matters. In some cases, we may receive indemnification from the prior owner or operator for some or all of such liabilities, and in other cases we may accept some or all of such liabilities. There is no assurance that any such third parties will perform any such indemnification obligations, or that the obligations and liabilities that we may accept in connection with any such acquisition will not be larger than anticipated, and in such event, our results of operations and cash available for distribution could be adversely affected.

If foreign investment in us or our general partner exceeds certain levels, we could be prohibited from operating inland river vessels, which could materially and adversely affect our business, financial condition, results of operations and cash flows.

The Shipping Act of 1916 and Merchant Marine Act of 1920, which we refer to collectively as the Maritime Laws, generally require that vessels engaged in U.S. coastwise trade be owned by U.S. citizens. Among other requirements to establish citizenship, entities that own such vessels must be owned at least 75 percent by U.S. citizens. If we fail to maintain compliance with the Maritime Laws, we would be prohibited from operating vessels in the U.S. inland waters. Such a prohibition could materially and adversely affect our business, financial condition, results of operations and cash flows.

Risks Relating to our Industry

Certain of our pipelines may be subject to federal or state rate and service regulation, and the imposition and/or cost of compliance with such regulation could adversely affect our operations and cash flows available for distribution to our unitholders.

Some of our natural gas, crude oil, NGL, and refined product pipelines are, or may in the future be, subject to siting, public necessity and/or service regulations by FERC and/or various state or other regulatory bodies, depending upon jurisdiction. FERC generally regulates the transportation of natural gas, NGLs, crude oil and refined products in interstate commerce and FERC's regulatory authority includes: facilities construction, acquisition, extension or abandonment of services or facilities (for natural gas pipelines only); rates; operations; accounts and records; and depreciation and amortization policies. FERC's action in any of these areas or modifications of its current regulations can adversely impact our ability to compete for business, the costs we incur in our operations, the construction of new facilities or our ability to recover the full cost of operating our pipelines. FERC also may conduct audits of these facilities, and if FERC determines that we are not in compliance with our tariff or applicable regulations, we may incur additional costs, expenses or penalties. For certain natural gas, NGL, crude oil and refined product common carrier pipelines, we have FERC tariffs on file and we may have additional pipelines in the future that may be subject to these requirements. We also own and are constructing pipelines, including pipelines that carry NGLs between our processing and fractionation facilities, that we believe are either not subject to FERC's jurisdiction or would otherwise meet the qualifications for a waiver from many or all of FERC's requirements. However, we cannot provide assurance that FERC will not at some point find that some or all of these pipelines are subject to FERC's requirements and/or are otherwise not exempt from certain requirements. Such a finding could subject us to potentially burdensome and expensive operational, reporting and other requirements as well as fines, penalties or other sanctions.

Most of our natural gas and NGL pipelines are generally not subject to regulation by FERC. The NGA specifically exempts natural gas gathering systems from FERC's jurisdiction. Yet, such operations may still be subject to regulation by various state agencies. The applicable statutes and regulations generally require that our rates and terms and conditions of service provide no more than a fair return on the aggregate value of the facilities used to render services and that we offer service to our shippers on a not unduly discriminatory basis. We cannot assure unitholders that FERC will not at some point determine that some or all of such pipelines are within its jurisdiction, and regulate such services, which could limit the rates that we may charge, increase our costs of operation, and subject us to fines, penalties or other sanctions. FERC rate cases can involve complex and expensive proceedings. For more information regarding regulatory matters that could affect our business, please read Item 1. Business—Regulatory Matters as set forth in this Annual Report on Form 10-K.

Some of our natural gas, NGL, crude oil and refined product pipelines, are subject to FERC's rate-making policies that could have an adverse impact on our ability to establish rates that would allow us to recover the full cost of operating our pipelines including a reasonable return.

A number of our pipelines provide interstate service that is subject to regulation by FERC. FERC prescribes rate methodologies for developing regulated tariff rates for these natural gas, interstate oil and products pipelines. FERC's regulated tariff may not allow us to recover all of our costs of providing services. Changes in FERC's approved rate methodologies, or challenges to our application of an approved methodology, could also adversely affect our rates. Additionally, shippers may protest (and FERC may investigate) the lawfulness of tariff rates. FERC can require refunds of amounts collected pursuant to rates that are ultimately found to be unlawful and prescribe new rates prospectively.

MPC has agreed not to challenge, or to cause others to challenge or assist others in challenging, our tariff rates in effect during the term of our transportation services agreements with MPC. However, this agreement does not prevent other shippers or interested persons from challenging our tariff rates or proration rules; nor does it prevent regulators from reviewing our rates and tariffs on their own initiative. At the end of the term of each of our transportation services agreements with MPC, if the agreement is not renewed, MPC will be free to challenge, or to cause other parties to challenge or assist others in challenging, our tariffs in effect at that time.

Action by FERC could adversely affect our ability to establish reasonable rates that cover operating costs and allow for a reasonable return. An adverse determination in any future rate proceeding brought by or against us could have a material adverse effect on our business, financial condition and results of operations.

If we are unable to obtain new rights-of-way or other property rights, or the cost of renewing existing rights-of-way or property rights increases, then we may be unable to fully execute our growth strategy, which may adversely affect our operations and cash flows available for distribution to unitholders.

The construction of additions to, or expansions of, our facilities may require us to obtain new rights-of-way or other property rights prior to constructing new plants, pipelines and other transportation and storage facilities. We may be unable to obtain such rights-of-way or other property rights to connect new natural gas supplies to our existing gathering lines, to connect our existing or future facilities to new natural gas, NGL, crude oil or refined product markets, or to capitalize on other attractive expansion opportunities. Additionally, it may become more expensive for us to renew existing rights-of-way or other property rights, including the renewal of leases for land on which our processing facilities are located. If the cost of obtaining new or renewing existing rights-of-way or other property rights increases, it may adversely affect our operations and cash flows available for distribution to unitholders. If we are unable to renew a lease or other land rights for land on which any of our processing or other facilities are located, we may be required to remove our facilities from that site, which could require us to incur significant costs and expenses, disrupt our operations, and adversely affect our cash available for distribution.

Increases in interest rates could adversely impact our unit price, our ability to issue equity or incur debt for acquisitions or other purposes and our ability to make distributions at our intended levels.

Our revolving credit facility and our loan agreement with MPC Investment LLC ("MPC Investment") have variable interest rates. The United States Federal Reserve has gradually raised the federal funds rate since 2015 and may continue to raise interest rates in the future. As a result, future interest rates on our debt could be higher than current levels, causing our financing costs to increase accordingly. In addition, we may in the future refinance outstanding borrowings under our revolving credit facility with fixed-rate indebtedness. Interest rates payable on fixed-rate indebtedness typically are higher than the short-term variable interest rates that we pay on borrowings under our revolving credit facility. We also have other fixed-rate indebtedness that we may need or desire to refinance in the future prior to the applicable stated maturity. Furthermore, as with other yield-oriented securities, our unit price will be impacted by our cash distributions and the implied distribution yield. The distribution yield is often used by investors to compare and rank yield-oriented securities for investment decision-making purposes. Therefore, changes in interest rates, either positive or negative, may affect the yield requirements of investors who invest in our units, and a rising interest rate environment could have an adverse impact on our unit price and our ability to issue equity or incur debt for acquisitions or other purposes and to make distributions at our intended levels.

Our business is subject to laws and regulations with respect to environmental, occupational safety and health, nuisance, zoning, land use and other regulatory matters, and the violation of, or the cost of compliance with, such laws and regulations could adversely affect our operations and cash flows available for distribution to our unitholders.

Numerous governmental agencies enforce federal, regional, state and local laws and regulations on a wide range of environmental, occupational safety and health, nuisance, zoning, land use, endangered species and other regulatory matters. We could be adversely affected by increased costs due to stricter pollution-control requirements or liabilities resulting from non-compliance with operating or other regulatory permits. Strict joint and several liability may be incurred without regard to fault, or the legality of the original conduct, under certain of the environmental laws for remediation of contaminated areas, including CERCLA, RCRA and analogous state laws. Private parties, including the owners of properties located near our facilities or through which our pipelines pass, also may have the right to pursue legal actions to enforce compliance, as well as seek damages for

non-compliance, with environmental laws and regulations or for personal injury or property damage. New, more stringent environmental laws, regulations and enforcement policies, the listing of additional species as endangered or threatened or the designation of new critical habitat for listed species, and new, amended or re-interpreted permitting requirements, policies and processes, might adversely affect our operations and activities, and existing laws, regulations and policies could be reinterpreted or modified to impose additional requirements, delays or constraints on our construction of facilities or on our operations, increase our operating costs, or require our facilities to be aggregated into one air emissions permit or permit application. In addition, government disruptions, such as a U.S. federal government shutdown, may delay or halt the granting and renewal of permits, licenses and other items required by us and our customers to conduct our business. We have experienced construction delays related to these factors as a result of the U.S. federal government's recent shutdown. Federal, state and local agencies also could impose additional health and safety requirements, any of which could increase our operating costs. Local governments may adopt more stringent local permitting and zoning ordinances that impose additional time, place and manner restrictions, delays or constraints on our activities to construct and operate our facilities, require the relocation of our facilities, prevent or restrict the expansion of our facilities, or increase our costs to construct and operate our facilities, including the construction of sound mitigation devices.

In addition, we face the risk of accidental releases or spills associated with our operations, which could result in material costs and liabilities, including those relating to claims for damages to property, natural resources and persons, environmental remediation and restoration costs and governmental fines and penalties. Our failure to comply with or alleged non-compliance with environmental or safety-related laws and regulations could result in administrative, civil and criminal penalties, the imposition of investigatory and remedial obligations and even injunctions that restrict or prohibit some or all of our operations. For more information regarding the environmental, safety and other regulatory matters that could affect our business, please read Item 1. Business—Regulatory Matters and Item 1. Business—Environmental Regulation, each as set forth in this Annual Report on Form 10-K.

Climate change legislation or regulations restricting emissions of GHGs or methane could result in increased operating costs, reduced demand for our services and adversely affect the cash flows available for distribution to our unitholders.

As a consequence to an EPA administrative conclusion that GHGs present an endangerment to public health and the environment, the EPA and some states have adopted or are considering regulations aimed at regulating GHG emissions from certain stationary sources that are potential sources of certain principal, or criteria, pollutant emissions. For example, on June 3, 2016, the EPA finalized new regulations that set methane emission standards for new and modified oil and gas production and natural gas processing and transmission facilities. The regulations were part of the prior Administration's efforts to reduce methane emissions from the oil and gas sector by up to 45 percent from 2012 levels by 2025. In September 2018, the EPA proposed targeted improvements to the 2016 New Source Performance Standards for the oil and gas industry that are meant to streamline implementation of the rules. Because the issue of climate change continues to receive scientific and political attention, there is also the potential for further legislation or regulation that could result in increased operating costs and/or reduced demand for the oil, natural gas, NGLs and products we gather, process, fractionate, store and transport.

To the extent that state or federal legislation is passed or regulations are imposed to reduce or regulate GHG emissions, we may experience delays in the construction and installation of new facilities due to more stringent permitting requirements, incur additional costs to reduce methane emissions associated with our operations or be required to aggregate the emissions from separate facilities for permitting purposes or to relocate one or more of our facilities due to more stringent emissions standards. If we incur additional costs to reduce methane emissions associated with our operations, it is possible that we may be able to pass through a portion of those costs to our producer customers to the extent permitted under our contractual arrangements. To the extent that we incur additional costs or delays, our cash available for distribution may be adversely affected.

Our producer customers or suppliers may also experience similar issues, which may adversely impact their drilling schedules and production volumes and reduce the volumes delivered to us. For more information regarding greenhouse gas and methane emission and regulation, please read Item 1. Business—Environmental Regulation—Climate Change.

Severe weather events may adversely affect our facilities and ongoing operations.

We have mature systems in place to manage potential acute physical risks, such as floods, hurricane-force winds, wildfires and snowstorms, and potential chronic physical risks, such as higher ocean levels. If any such events were to occur, they could have an adverse effect on our assets and operations. Specifically, where appropriate, we are hardening and modernizing assets against flood and wind damage and ensuring we have resiliency measures in place, such as storm-specific readiness plans. We have incurred and will continue to incur additional costs to protect our assets and operations from such physical risks and employ the evolving technologies and processes available to mitigate such risks. To the extent such severe weather events increase in frequency and severity, we may be required to modify operations and incur costs that could materially and adversely affect our business, financial condition, results of operations and cash flows.

Federal, state and local legislation and regulatory initiatives relating to hydraulic fracturing, as well as governmental reviews of such activities, could delay or impede oil or gas production or result in reduced volumes available for us to gather, transport, store, process and fractionate.

We do not conduct hydraulic fracturing operations, but we do provide gathering, processing, transportation, storage and fractionation services with respect to natural gas, oil, NGLs and refined products produced by our customers as a result of such operations. Hydraulic fracturing is an important and common practice that is used to stimulate production of hydrocarbons, particularly natural gas, from tight formations such as shales. The process involves the injection of water, sand and chemicals under pressure into targeted subsurface formations to fracture the surrounding rock and stimulate production. The process is typically regulated by state oil and gas commissions but several federal agencies have asserted regulatory authority over certain aspects of the process, including the EPA and BLM. In addition, Congress has from time to time considered legislation to provide for additional regulation of hydraulic fracturing. Also, several states have adopted or are considering legal requirements that could impose more stringent permitting, disclosure and well construction requirements on hydraulic fracturing activities. Local governments also may seek to adopt ordinances within their jurisdictions regulating the time, place and manner of drilling activities in general or hydraulic fracturing activities in particular. If new federal, state or local laws or regulations that significantly restrict hydraulic fracturing are adopted, such legal requirements could make it more difficult to complete natural gas and oil wells in shale formations and increase our producers' costs of compliance. This could significantly reduce the volumes delivered to us, which could adversely impact our earnings, profitability and cash flows.

We do not insure against all potential losses, and, therefore, our business, financial condition, results of operations and cash flows could be adversely affected by unexpected liabilities and increased costs.

We maintain insurance coverage in amounts we believe to be prudent against many, but not all, potential liabilities arising from operating hazards. Uninsured liabilities arising from operating hazards, including but not limited to, explosions, fires, pipeline releases, cybersecurity breaches or other incidents involving our assets or operations, could reduce the funds available to us for capital and investment spending and could have a material adverse effect on our business, financial condition, results of operations and cash flows. Historically, we also have maintained insurance coverage for physical damage and resulting business interruption to our major facilities, with significant self-insured retentions. In the future, we may not be able to maintain insurance of the types and amounts we desire at reasonable rates.

We may incur significant costs and liabilities resulting from performance of pipeline integrity programs and related repairs, and the expansion of pipeline safety laws and regulations could require us to use more comprehensive and stringent safety controls and subject us to increased capital and operating costs.

The DOT through the PHMSA has adopted regulations requiring pipeline operators to develop integrity management programs for gas transmission and hazardous liquids pipelines located where a leak or rupture could do the most harm. The regulations require the following of operators of covered pipelines to:

- perform ongoing assessments of pipeline integrity;
- identify and characterize applicable threats to pipeline segments that could impact a high consequence area;
- improve data collection, integration and analysis;
- repair and remediate the pipeline as necessary; and
- implement preventive and mitigating actions.

Over the past several years, PHMSA has published new regulations, and issued notices for additional proposed regulations, to expand pipeline safety requirements.

In addition, PHMSA and other state regulators have recently expanded the scope of their regulatory inspections to include certain in-plant equipment and pipelines found within NGL fractionation facilities and associated storage facilities to assess compliance with hazardous liquids pipeline safety requirements, which actions by PHMSA are currently subject to judicial and administrative challenges by one or more midstream operators. The adoption of these and other laws or regulations that apply more comprehensive or stringent safety standards to gas, NGL, crude oil and refined product lines or other facilities, or the expansion of regulatory inspections by PHMSA and other state regulators described above, could require us to install new or modified safety controls, pursue added capital projects, make modifications or operational changes, or conduct maintenance programs on an accelerated basis, all of which could require us to incur increased capital and operational costs or operational delays that could be significant and have a material adverse effect on our financial position or results of operations and ability to make distributions to our unitholders.

Some states have adopted regulations similar to existing PHMSA regulations for intrastate gathering and transmission lines. These regulations have raised operating costs for the industry, and compliance with such laws and regulations may cause us to incur potentially material capital expenditures associated with the construction, maintenance, and upgrading of equipment and facilities.

The United States inland waterway infrastructure is aging and planned and unplanned maintenance may adversely affect our operations.

Maintenance of the United States inland waterway system is vital to our marine transportation operations. The system is composed of over 12,000 miles of commercially navigable waterway, supported by over 240 locks and dams designed to provide flood control, maintain pool levels of water in certain areas of the country and facilitate navigation on the inland river system. The United States inland waterway infrastructure is aging, with more than half of the locks over 50 years old. As a result, due to the age of the locks, planned and unplanned maintenance may create more frequent outages, resulting in delays and additional operating expenses. Part of the costs for new construction and major rehabilitation of locks and dams is funded by marine transportation companies through taxes and the other portion is funded by general federal tax revenues. Failure of the federal government to adequately fund infrastructure maintenance and improvements in the future would have a negative impact on our ability to deliver products to our customers on a timely basis. Furthermore, any additional user taxes that may be imposed in the future to fund infrastructure improvements would increase our operating expenses.

Interruptions in operations at any of our facilities or those of our customers, including MPC's refining operations, may adversely affect our operations and cash flows available for distribution to our unitholders.

Our operations depend upon the infrastructure that we have developed, including processing and fractionation plants, storage facilities, gathering and transportation facilities, an export terminal, various other means of transportation and marketing services. Any significant interruption at these facilities or pipelines, or our customers' operations, including MPC's refining operations, or in our ability to gather, transport or store natural gas, NGLs, crude oil or other refined products to or from these facilities or pipelines for any reason, or to market or transport the natural gas, crude oil, NGLs or refined products, would adversely affect our operations and cash flows available for distribution to our unitholders. In some cases, these events may also adversely affect the pricing received for NGLs, and may reduce the volumes of oil, gas, NGLs and refined products that we receive.

Operations at our or our customers' facilities, including MPC's refineries, could be partially or completely shut down, temporarily or permanently, as the result of circumstances not within our control, such as:

- unscheduled turnarounds or catastrophic events, including damages to pipelines and facilities, related
 equipment and surrounding properties caused by earthquakes, tornadoes, hurricanes, floods, fires, severe
 weather, explosions and other natural disasters;
- restrictions imposed by governmental authorities or court proceedings;
- labor difficulties that result in a work stoppage or slowdown;
- a disruption in the supply of natural gas, NGLs, crude oil or refined products to our pipelines, barges, processing and fractionation plants and associated facilities;
- disruption in our supply of power, water and other resources necessary to operate our facilities;
- a marine accident or spill event could close a portion of the inland waterway system;
- damage to our facilities resulting from gas, crude oil, NGLs or refined products that do not comply with applicable specifications; and
- inadequate fractionation, transportation or storage capacity or market access to support production volumes, including lack of availability of rail cars, barges, trucks and pipeline capacity, or market constraints, including reduced demand or limited markets for certain NGL products.

Our NGL fractionation, storage and marketing operations in the Marcellus and Utica regions are integrated, and as a result, it is possible that an interruption of these operations may impact operations in the other regions, which may exacerbate the impacts of such interruption.

The construction and operation of certain of our facilities in our G&P segment may be impacted by surface or subsurface mining operations by one or more third parties, which could adversely impact our construction activities or cause subsidence or other damage to our facilities. In such event, our construction may be prevented or delayed, or the costs and time increased, or our operations at such facilities may be impaired or interrupted, and we may not be able to recover the costs incurred for delays or to relocate or repair our facilities, from such third parties.

In addition, our marine transportation business is subject to weather conditions on a daily basis. Adverse weather conditions such as high or low water on the inland waterway systems, fog and ice, tropical storms, hurricanes and tsunamis on both the inland waterway systems and throughout the United States coastal waters can impair the operating efficiencies of the marine fleet. Such adverse weather conditions can cause a delay, diversion or postponement of shipments of products and are beyond our control. In addition, adverse water and weather conditions can negatively affect a towing vessel's performance, tow size, loading drafts, fleet efficiency, place limitations on night passages and dictate horsepower requirements.

We rely on the performance of our information technology systems, and the failure of any information technology system, including a failure due to a cybersecurity breach, could have an adverse effect on our results of operations, financial condition and cash flows.

Our business has become increasingly dependent upon digital technologies, including information systems, infrastructure and cloud applications for the gathering and processing of natural gas, the gathering, fractionation, transportation and marketing of NGLs, and the gathering, storage and transportation of crude oil and refined products. We are heavily dependent on our information technology systems, including our network infrastructure and cloud applications, for the effective operation of our business. We rely on such systems to process, transmit and store electronic information, including financial records and personally identifiable information such as contractor, investor and payroll data, and to manage or support a variety of business processes, including our supply chain, pipeline operations, gathering and processing operations, financial transactions, banking and numerous other processes and transactions. These information systems involve data network and telecommunications, Internet access and website functionality, and various computer hardware equipment and software applications, including those that are critical to the safe operation of our business. Our systems and infrastructure are subject to damage or interruption from a number of potential sources including natural disasters, software viruses or other malware, power failures, cyber-attacks and other events. We also face various other cybersecurity threats from criminal hackers, state-sponsored intrusion, industrial espionage and contractor malfeasance, including threats to gain unauthorized access to sensitive information or to render data or systems unusable.

To protect against such attempts of unauthorized access or attack, we have implemented multiple layers of cybersecurity protections, infrastructure protection technologies, disaster recovery plans and employee training. While we have invested significant amounts in the protection of our technology systems and maintain what we believe are adequate security controls over personally identifiable investor and contractor data, there can be no guarantee such plans, to the extent they are in place, will be effective. Certain vendors have access to sensitive information, including personally identifiable investor and contractor data and a breakdown of their technology systems or infrastructure as a result of a cyber-attack or otherwise could result in unauthorized disclosure of such information. Unauthorized disclosure of sensitive or personally identifiable information, including by cyber-attacks or other security breach, could cause loss of data, give rise to remediation or other expenses, expose us to liability under federal and state laws, reduce our customers' willingness to do business with us, disrupt the services we provide to customers and subject us to litigation and investigations, which could have an adverse effect on our reputation, business, financial condition, results of operations and cash flows available for distribution to our unitholders. State and federal cybersecurity legislation could also impose new requirements, which could increase our cost of doing business.

Terrorist attacks aimed at our facilities or that impact our customers or the markets we serve could adversely affect our business.

The U.S. government has issued warnings that energy assets in general, including the nation's refining, pipeline and terminal infrastructure, may be future targets of terrorist organizations. The threat of terrorist attacks has subjected our operations to increased risks. Any future terrorist attack on our facilities, those of our customers and, in some cases, those of other pipelines, could have a material adverse effect on our business. Similarly, any future terrorist attacks that severely disrupt the markets we serve could materially and adversely affect our results of operations, financial position and cash flows.

Risks Relating to the Business and Operations of MPC

MPC accounted for a large portion of our revenues in 2018 and will continue to do so on a go-forward basis. If MPC changes its business strategy, is unable to satisfy its obligations to us or significantly reduces the volumes transported through our facilities or stored at our storage assets, our revenues would decline and our financial condition, results of operations, cash flows, and ability to make distributions to our unitholders would be materially and adversely affected.

For the year ended December 31, 2018, excluding revenues attributable to volumes shipped by MPC under joint tariffs with third parties that were treated as third-party revenues for accounting purposes, MPC accounted for approximately 46 percent of our revenues and other income, including 92 percent of the revenues and other income within our L&S segment, and we believe MPC will continue to account for a large portion of our revenues on a go forward basis. As we expect to continue to derive a portion of our revenues from MPC for the foreseeable future, any event that materially and adversely affects MPC's financial condition, results of operations or cash flows may adversely affect our ability to sustain or increase distributions to our unitholders. Accordingly, we are indirectly subject to the operational and business decisions and risks of MPC, the most significant of which include the following:

- the timing and extent of changes in commodity prices and demand for MPC's products, and the availability and costs of crude oil and other refinery feedstocks;
- a material decrease in the refining margins at MPC's refineries;
- disruptions due to equipment interruption or failure at MPC's facilities or at third-party facilities on which MPC's business is dependent;
- any decision by MPC to temporarily or permanently alter, curtail or shut down operations at one or more of
 its refineries or other facilities and reduce or terminate its obligations under our transportation and storage or
 refining logistics and fuels distribution agreements;
- changes to the routing of volumes shipped by MPC on our crude oil and product pipelines or the ability of MPC to utilize third-party pipeline connections to access our pipelines;
- MPC's ability to remain in compliance with the terms of its outstanding indebtedness;
- changes in the cost or availability of third-party pipelines, railways, vessels, terminals and other means of delivering and transporting crude oil, feedstocks, refined products and other hydrocarbon-based products;
- state and federal environmental, economic, health and safety, energy and other policies and regulations, and any changes in those policies and regulations;
- environmental incidents and violations and related remediation costs, fines and other liabilities;
- operational hazards and other incidents at MPC's refineries and other facilities, such as explosions and fires, that result in temporary or permanent shut downs of those refineries and facilities;
- changes in crude oil and product inventory levels and carrying costs; and
- disruptions due to hurricanes, tornadoes or other forces of nature.

We have no control over MPC's business decisions and operations, and MPC may elect to pursue a business strategy that does not favor us and our business. In addition, significant stockholders of MPC may attempt to affect changes at MPC or acquire control of the company, which could impact the pursuit of MPC's business strategies. Campaigns by stockholders to affect changes at publicly traded companies are sometimes led by investors seeking to increase short-term stockholder value through actions such as financial restructuring, increased debt, special dividends, stock repurchases or sales of assets or the entire company. As a result, stockholder campaigns at MPC could directly or indirectly adversely affect our results of operations and financial condition and our ability to sustain or increase distributions to our unitholders.

MPC may suspend, reduce or terminate its obligations under its agreements with us in some circumstances, which would have a material adverse effect on our financial condition, results of operations, cash flows and ability to make distributions to our unitholders.

Certain of our transportation, terminal, fuels distribution, marketing and storage services agreements with MPC include provisions that permit MPC to suspend, reduce or terminate its obligations under the applicable agreement if certain events occur. These events include a material breach of the applicable agreement by us, MPC being prevented from transporting its full minimum volume commitment because of capacity constraints on our pipelines, certain force majeure events that would prevent us from performing some or all of the required services under the applicable agreement and MPC's determination to suspend refining operations at one of its refineries. MPC has the discretion to make such decisions notwithstanding the fact that they may significantly and adversely affect us. These actions could result in a suspension, reduction or termination of MPC's obligations under one or more transportation and storage services agreements.

Any such reduction, suspension or termination of MPC's obligations would have a material adverse effect on our financial condition, results of operations, cash flows and ability to make distributions to our unitholders.

If MPC satisfies only its minimum obligations under, or if we are unable to renew or extend, the transportation, terminal, fuels distribution, marketing and storage services agreements we have with MPC, or if MPC elects to use credits upon the expiration or termination of an agreement, our cash available for distribution will be materially and adversely affected.

MPC is not obligated to use our services with respect to volumes of crude oil or products in excess of the minimum volume commitments under the transportation services agreements with us. Our cash available for distribution will be materially and adversely affected to the extent that we do not transport volumes in excess of the minimum volume commitments under our transportation services agreements or if MPC's obligations under our transportation, terminal, fuels distribution, marketing and storage services agreements are suspended, reduced or terminated. In addition, the initial terms of MPC's obligations under those agreements range from three to 17 years. If MPC fails to use our assets and services after expiration of those agreements and we are unable to generate additional revenues from third parties, our ability to make distributions to unitholders may be materially and adversely affected.

In addition, under our transportation services agreements, MPC must pay us a deficiency payment if it fails to transport its minimum throughput commitment. MPC may then apply the amount of any such deficiency payments as a credit for volumes transported on the applicable pipeline in excess of its minimum volume commitment during the following four quarters or eight quarters under the terms of the applicable transportation services agreement. Upon the expiration or termination of a transportation services agreement, MPC may use any remaining credits against any volumes shipped by MPC on the applicable pipeline for the succeeding four or eight quarters, as applicable, without regard to any minimum volume commitment that may have been in place during the term of the agreement. If that were to occur, we would not receive any cash payments for volumes shipped on the applicable pipeline until any such remaining credits were fully used or until the expiration of the applicable four or eight quarter period.

MPC's level of indebtedness, the terms of its borrowings and its credit ratings could adversely affect our ability to grow our business and our ability to make distributions to our unitholders. Our ability to obtain credit in the future may also be adversely affected by MPC's credit rating.

MPC must devote a portion of its cash flows from operating activities to service its indebtedness, and therefore, cash flows may not be available for use in pursuing its growth strategy. Furthermore, a higher level of indebtedness at MPC in the future increases the risk that it may default on its obligations to us under our transportation and storage services agreements. As of December 31, 2018, MPC had consolidated long-term indebtedness of approximately \$28 billion, of which \$9 billion was a direct obligation of MPC. The covenants

contained in the agreements governing MPC's outstanding and future indebtedness may limit its ability to borrow additional funds for development and make certain investments and may directly or indirectly impact our operations in a similar manner.

Furthermore, if MPC were to default under certain of its debt obligations, there is a risk that MPC's creditors would attempt to assert claims against our assets during the litigation of their claims against MPC. The defense of any such claims could be costly and could materially impact our financial condition, even absent any adverse determination. If these claims were successful, our ability to meet our obligations to our creditors, make distributions and finance our operations could be materially and adversely affected.

MPC's long-term credit ratings are currently investment grade. If these ratings are lowered in the future, the interest rate and fees MPC pays on its credit facilities may increase. Credit rating agencies will likely consider MPC's debt ratings when assigning ours because of MPC's ownership interest in us, the significant commercial relationships between MPC and us, and our reliance on MPC for a portion of our revenues. If one or more credit rating agencies were to downgrade the outstanding indebtedness of MPC, we could experience an increase in our borrowing costs or difficulty accessing the capital markets. Such a development could adversely affect our ability to grow our business and to make distributions to our unitholders.

Risks Relating to Tax Matters

Our tax treatment depends on our status as a partnership for federal income tax purposes as well as our not being subject to a material amount of entity level taxation by individual states. If the IRS were to treat us as a corporation for federal income tax purposes, or we become subject to a material amount of entity level taxation for state tax purposes, it would substantially reduce the amount of cash available for distribution to our unitholders.

The anticipated after-tax economic benefit of an investment in the common units depends largely on our being treated as a partnership for federal income tax purposes. We have not requested, and do not plan to request, a ruling from the IRS on this.

A publicly traded partnership such as us may be treated as a corporation for federal income tax purposes unless it satisfies a "qualifying income" requirement. Based on our current operations, we believe that we are treated as a partnership rather than as a corporation for such purposes; however, a change in our business or a change in current law could cause us to be treated as a corporation for federal income tax purposes. We have requested and received a favorable ruling from the IRS on the treatment of a portion of our "qualifying income." The IRS may adopt positions that differ from the ones we take. A successful IRS contest of the federal income tax positions we take may adversely impact the market for our common units, and the costs of any IRS contest will reduce our cash available for distribution to unitholders.

If we were treated as a corporation for federal income tax purposes, we would pay federal income tax on our taxable income at the corporate tax rate, which is currently a maximum of 21 percent, and likely would pay state and local income tax at varying rates. Distributions to unitholders generally would be taxed again as corporate dividends, and no income, gains, losses, deductions, or credits would flow through to our unitholders. Treatment of us as a corporation would result in a material reduction in the anticipated cash flow and after-tax return to our unitholders, likely causing a substantial reduction in the value of our common units. Changes in current state law may subject us to additional entity-level taxation by individual states. Imposition of any such additional taxes on us will substantially reduce the cash available for distribution to unitholders.

Our Partnership Agreement provides that, if a law is enacted or an existing law is modified or interpreted in a manner that subjects us to taxation as a corporation or otherwise subjects us to entity-level taxation for federal, state or local income tax purposes, the minimum quarterly distribution amount and the target distribution amounts may be adjusted to reflect the impact of that law on us.

If the IRS contests the federal income tax positions we take, the market for our common units may be adversely impacted and the cost of any IRS contest will reduce our cash available for distribution.

The IRS has made no determination as to our status as a partnership for federal income tax purposes. The IRS may adopt positions that differ from the positions we take. It may be necessary to resort to administrative or court proceedings to sustain some or all the positions we take. A court may not agree with some or all of the positions we take. Any contest with the IRS may materially and adversely impact the market for our common units and the price at which they trade. In addition, our costs of any contest with the IRS will be borne indirectly by our unitholders and our general partner because the costs will reduce our cash available for distribution.

Our unitholders will be required to pay taxes on their share of income even if they do not receive any distributions from us.

Because our unitholders will be treated as partners to whom we will allocate taxable income that could be different in amount than the cash we distribute, our unitholders will be required to pay any federal income taxes and, in some cases, state and local income taxes on their share of our taxable income even if they receive no distributions from us. Our unitholders may not receive distributions from us equal to their share of our taxable income or even equal to the actual tax liability that result from that income.

Tax gain or loss on the disposition of our common units could be more or less than expected.

If our unitholders sell their common units, they will recognize gain or loss equal to the difference between the amount realized and their tax basis in those common units. Because distributions in excess of a unitholder's allocable share of our net taxable income decrease the unitholder's tax basis in their common units, the amount, if any, of such prior excess distributions with respect to their units will, in effect, become taxable income to the unitholder if the common units are sold at a price greater than the unitholder's tax basis in those common units, even if the price the unitholder receives is less than the unitholder's original cost. Furthermore, a substantial portion of the amount realized, whether or not representing gain, may be taxed as ordinary income due to potential recapture items, including depreciation recapture. In addition, because the amount realized includes a unitholder's share of our non-recourse liabilities, if a unitholder sells units, the unitholder may incur a tax liability in excess of the amount of cash received from the sale.

Tax-exempt entities and non-U.S. persons face unique tax issues from owning our common units that may result in adverse tax consequences to them.

Investment in common units by tax-exempt entities, such as employee benefit plans and individual retirement accounts (known as IRAs), and non-U.S. persons raises issues unique to them. For example, virtually all of our income allocated to organizations that are exempt from federal income tax, including IRAs and other retirement plans, will be unrelated business taxable income and will be taxable to them. Distributions to non-U.S. persons will be reduced by withholding taxes at the highest applicable effective tax rate, and non-U.S. persons will be required to file U.S. federal tax returns and pay tax on their share of our taxable income. Non-U.S. persons will also potentially have tax filings and payment obligations in additional jurisdictions. Tax-exempt entities and non-U.S. persons should consult their tax advisor before investing in our common units.

We treat each purchaser of common units as having the same tax benefits without regard to the actual units purchased. The IRS may challenge this treatment, which could adversely affect the value of the common units.

To maintain the uniformity of the economic and tax characteristics of common units, we have adopted depreciation and amortization positions that may not conform to all aspects of existing Treasury Regulations. A successful IRS challenge to those positions could adversely affect the amount of tax benefits available to our unitholders. It also could affect the timing of these tax benefits or the amount of gain from the sale of common units and could have a negative impact on the value of our common units or result in audit adjustments to our unitholders' tax returns.

Our unitholders will likely be subject to state and local taxes and return filing requirements in states where they do not live as a result of investing in our units.

In addition to federal income taxes, our unitholders will likely be subject to other taxes, including state and local taxes, unincorporated business taxes and estate, inheritance or intangible taxes that are imposed by the various jurisdictions in which we do business or own property now or in the future, even if our unitholders do not live in any of those jurisdictions. Our unitholders will likely be required to file state and local income tax returns and pay state and local income taxes in some or all of these various jurisdictions. Further, our unitholders may be subject to penalties for failure to comply with those requirements. We currently conduct business in approximately 23 states. Many of these states currently impose a personal income tax on individuals. As we make acquisitions or expand our business, we may own assets or conduct business in additional states that impose a personal income tax. It is our unitholders' responsibility to file all U.S. federal, state and local tax returns.

We have adopted certain valuation methodologies that may result in a shift of income, gain, loss and deduction between our general partner and our unitholders. The IRS may challenge this treatment, which could adversely affect the value of the common units.

When we issue additional units or engage in certain other transactions, we will determine the fair market value of our assets and allocate any unrealized gain or loss attributable to our assets to the capital accounts of our unitholders and our general partner. Our methodology may be viewed as understating the value of our assets. In that case, there may be a shift of income, gain, loss and deduction between certain unitholders and the general partner, which may be unfavorable to such unitholders. Moreover, under our valuation methods, subsequent purchasers of common units may have a greater portion of their Internal Revenue Code Section 743(b) adjustment allocated to our tangible assets and a lesser portion allocated to our intangible assets. The IRS may challenge our valuation methods, our allocation of the Section 743(b) adjustment attributable to our tangible and intangible assets, or our allocations of income, gain, loss and deduction between our general partner and certain of our unitholders.

A successful IRS challenge to these methods or allocations could adversely affect the amount of taxable income or loss being allocated to our unitholders. It also could affect the amount of gain from our unitholders' sale of common units and could have a negative impact on the value of the common units or result in audit adjustments to our unitholders' tax returns without the benefit of additional deductions.

A unitholder whose common units are loaned to a "short seller" to cover a short sale of common units may be considered as having disposed of those common units. If so, he would no longer be treated for tax purposes as a partner with respect to those common units during the period of the loan and may recognize gain or loss from the disposition.

A unitholder who loans his common units to a "short seller" to cover a short sale of common units (i) may be considered as having disposed of the loaned common units, (ii) may no longer be treated for tax purposes as a partner with respect to those common units during the period of the loan to the short seller and (iii) may recognize gain or loss from such disposition.

Moreover, during the period of the loan to the short seller, any of our income, gain, loss or deduction with respect to those common units may not be reportable by the unitholder and any distributions received by the unitholder as to those common units could be fully taxable as ordinary income. Unitholders desiring to assure their status as partners and avoid the risk of gain recognition from a loan to a short seller are urged to modify any applicable brokerage account agreements to prohibit their brokers from borrowing their common units.

The tax treatment of publicly traded partnerships or an investment in our units could be subject to potential legislative, judicial or administrative changes and differing interpretations, possibly on a retroactive basis.

The present U.S. federal income tax treatment of publicly traded partnerships, including us, or an investment in our common units may be modified by administrative, legislative or judicial interpretation at any time.

Any modification to the U.S. federal income tax laws and interpretations thereof may or may not be applied retroactively and could make it more difficult or impossible to meet the exception for certain publicly traded partnerships to be treated as partnerships for U.S. federal income tax purposes or increase the amount of taxes payable by unitholders in publicly traded partnerships.

We prorate our items of income, gain, loss and deduction between transferors and transferees of our units each month based upon the ownership of our units on the first day of each month, instead of on the basis of the date a particular unit is transferred. The IRS may challenge this treatment, which could change the allocation of items of income, gain, loss and deduction among our unitholders.

We prorate our items of income, gain, loss and deduction between existing unitholders and unitholders who purchase our units based upon the ownership of our units on the first day of each month, instead of on the basis of the date a particular unit is transferred. The use of this proration method may not be permitted under existing Treasury Regulations. The U.S. Treasury Department has issued proposed Treasury Regulations that provide a safe harbor pursuant to which publicly traded partnerships may use a similar monthly simplifying convention to allocate tax items. Nonetheless, the proposed regulations do not specifically authorize the use of the proration method we have adopted. If the IRS were to challenge our proration method or new Treasury Regulations were issued, we may be required to change the allocation of items of income, gain, loss and deduction among our unitholders.

If the IRS makes audit adjustments to our income tax returns for tax years beginning after 2017, it may collect any resulting taxes (including any applicable penalties and interest) directly from us, in which case our cash available for distribution to our unitholders might be substantially reduced.

Pursuant to the Bipartisan Budget Act of 2015, if the IRS makes audit adjustments to our income tax returns for tax years beginning after 2017, it may collect any resulting taxes (including any applicable penalties and interest) directly from us. We will generally have the ability to shift any such tax liability to our general partner and our unitholders in accordance with their interests in us during the year under audit, but there can be no assurance that we will be able to do so (or choose to do so) under all circumstances. If we are required to make payments of taxes, penalties and interest resulting from audit adjustments, our cash available for distribution to our unitholders might be reduced.

Risks Relating to Ownership of our Common Units

Our general partner and its affiliates, including MPC, have conflicts of interest with us and limited duties to us and our unitholders, and they may favor their own interests to our detriment and that of our unitholders. Additionally, we have no control over MPC's business decisions and operations, and MPC is under no obligation to adopt a business strategy that favors us.

MPC owns our general partner and approximately 64 percent of our outstanding common units as of February 15, 2019. Although our general partner has a duty to manage us in a manner that is not adverse to the best interests of our partnership and our unitholders, the directors and officers of our general partner also have a duty to manage our general partner in a manner that is not adverse to the best interests of its owner, MPC.

Conflicts of interest may arise between MPC and its affiliates, including our general partner, on the one hand, and us and our unitholders, on the other hand. In resolving these conflicts, the general partner may favor its own

interests and the interests of its affiliates, including MPC, over the interests of our common unitholders, which may occur under our Partnership Agreement without being independently reviewed by the conflicts committee. These conflicts include, among others, the following situations:

- neither our Partnership Agreement nor any other agreement requires MPC to pursue a business strategy that
 favors us or utilizes our assets, which could involve decisions by MPC to increase or decrease refinery
 production, shut down or reconfigure a refinery, or pursue and grow particular markets. MPC's directors
 and officers have a fiduciary duty to make these decisions in the best interests of the stockholders of MPC;
- MPC, as a significant customer, has an economic incentive to cause us to not seek higher tariff rates, even if such higher rates or fees would reflect rates and fees that could be obtained in arm's-length, third-party transactions:
- MPC may be constrained by the terms of its debt instruments from taking actions, or refraining from taking actions, that may be in our best interests;
- our Partnership Agreement replaces the fiduciary duties that would otherwise be owed by our general partner with contractual standards governing its duties, limiting our general partner's liabilities and restricting the remedies available to our unitholders for actions that, without the limitations, might constitute breaches of fiduciary duty;
- except in limited circumstances, our general partner has the power and authority to conduct our business without unitholder approval;
- our general partner will determine the amount and timing of asset purchases and sales, borrowings, issuance of additional partnership securities and the creation, reduction or increase of cash reserves, each of which can affect the amount of cash that is distributed to our unitholders;
- our general partner will determine the amount and timing of many of our cash expenditures and whether a
 cash expenditure is classified as an expansion capital expenditure, which would not reduce operating
 surplus, or a maintenance capital expenditure, which would reduce our operating surplus. This
 determination can affect the amount of cash that is distributed to our unitholders and to our general partner
 and the amount of adjusted operating surplus generated in any given period;
- our general partner will determine which costs incurred by it are reimbursable by us and may cause us to pay it or its affiliates for any services rendered to us;
- our general partner may cause us to borrow funds in order to permit the payment of distributions;
- our Partnership Agreement permits us to classify up to \$60 million as operating surplus, even if it is generated from asset sales, non-working capital borrowings or other sources that would otherwise constitute capital surplus. This cash may be used to fund distributions to our general partner;
- our Partnership Agreement does not restrict our general partner from entering into additional contractual arrangements with it or its affiliates on our behalf;
- our general partner intends to limit its liability regarding our contractual and other obligations;
- our general partner may exercise its right to call and purchase all of the common units not owned by it and its affiliates if it and its affiliates own more than 85 percent of the common units;
- our general partner controls the enforcement of obligations owed to us by our general partner and its affiliates, including our transportation and storage services agreements with MPC; and
- our general partner decides whether to retain separate counsel, accountants or others to perform services for us.

Under the terms of our Partnership Agreement, the doctrine of corporate opportunity, or any analogous doctrine, does not apply to our general partner or any of its affiliates, including its executive officers, directors and owners.

Any such person or entity that becomes aware of a potential transaction, agreement, arrangement or other matter that may be an opportunity for us will not have any duty to communicate or offer such opportunity to us. Any such person or entity will not be liable to us or to any limited partner for breach of any fiduciary duty or other duty by reason of the fact that such person or entity pursues or acquires such opportunity for itself, directs such opportunity to another person or entity or does not communicate such opportunity or information to us. This may create actual and potential conflicts of interest between us and affiliates of our general partner and result in less than favorable treatment of us and our unitholders.

Our Partnership Agreement requires that we distribute all of our available cash, which could limit our ability to grow and make acquisitions.

Our Partnership Agreement requires that we distribute all of our available cash to our unitholders. As a result, we expect to rely primarily upon external financing sources, including commercial bank borrowings and the issuance of debt and equity securities, to fund our acquisitions and expansion capital expenditures. Therefore, to the extent we are unable to finance our growth externally, our cash distribution policy will significantly impair our ability to grow. In addition, because we will distribute all of our available cash, our growth may not be as fast as that of businesses that reinvest their available cash to expand ongoing operations. To the extent we issue additional units in connection with any acquisitions or expansion capital expenditures, the payment of distributions on those additional units may increase the risk that we will be unable to maintain or increase our per unit distribution level. The incurrence of additional commercial borrowings or other debt to finance our growth strategy would result in increased interest expense, which, in turn, may reduce the amount of cash available to distribute to our unitholders.

Our Partnership Agreement replaces our general partner's fiduciary duties to holders of our common units with contractual standards governing its duties and restricts the remedies available to unitholders for actions taken by our general partner.

Our Partnership Agreement contains provisions that eliminate the fiduciary standards to which our general partner would otherwise be held by state fiduciary duty law and replaces those duties with several different contractual standards. For example, our Partnership Agreement permits our general partner to make a number of decisions in its individual capacity, as opposed to in its capacity as our general partner, free of any duties to us and our unitholders other than the implied contractual covenant of good faith and fair dealing. Our general partner is entitled to consider only the interests and factors that it desires and is relieved of any duty or obligation to give consideration to any interest of, or factors affecting, us, our affiliates or our limited partners.

Our Partnership Agreement contains provisions that restrict the remedies available to unitholders for actions taken by our general partner that might otherwise constitute breaches of fiduciary duty under state fiduciary duty law. For example, our Partnership Agreement:

- provides that whenever our general partner makes a determination or takes, or declines to take, any other action in its capacity as our general partner, our general partner is required to make such determination, or take or decline to take such other action, in good faith and will not be subject to any other or different standard imposed by our Partnership Agreement, Delaware law, or any other law, rule or regulation, or at equity;
- provides that our general partner will not have any liability to us or our unitholders for decisions made in its capacity as a general partner so long as it acted in good faith;
- provides that our general partner and its officers and directors will not be liable for monetary damages to us or our limited partners resulting from any act or omission unless there has been a final and non-appealable judgment entered by a court of competent jurisdiction determining that our general partner or its officers and directors, as the case may be, acted in bad faith or engaged in fraud or willful misconduct or, in the case of a criminal matter, acted with knowledge that the conduct was criminal; and

provides that our general partner will not be in breach of its obligations under our Partnership Agreement or
its fiduciary duties to us or our limited partners if a transaction with an affiliate or the resolution of a
conflict of interest is approved in accordance with, or otherwise meets the standards set forth in, our
Partnership Agreement.

In connection with a transaction with an affiliate or a conflict of interest, our Partnership Agreement provides that any determination by our general partner must be made in good faith, and that our conflicts committee and the board of directors of our general partner are entitled to a presumption that they acted in good faith. In any proceeding brought by or on behalf of any limited partner or the partnership, the person bringing or prosecuting such proceeding will have the burden of overcoming such presumption. By purchasing a common unit, a unitholder is treated as having consented to the provisions in our Partnership Agreement, including the provisions discussed above.

Unitholders have very limited voting rights and, even if they are dissatisfied, they have limited ability to remove our general partner without its consent.

Unlike the holders of common stock in a corporation, unitholders have only limited voting rights on matters affecting our business and, therefore, limited ability to influence management's decisions regarding our business. Unitholders did not elect our general partner or the board of directors of our general partner and will have no right to elect our general partner or the board of directors of our general partner on an annual or other continuing basis. The board of directors of our general partner is chosen by the members of our general partner, which are wholly-owned subsidiaries of MPC. Furthermore, if the unitholders are dissatisfied with the performance of our general partner, they will have little ability to remove our general partner. The vote of the holders of at least 66 2/3 percent of all outstanding common units voting together as a single class is required to remove our general partner. As of February 15, 2019, our general partner and its affiliates owned approximately 64 percent of the outstanding common units (excluding common units held by officers and directors of our general partner and MPC). As a result of these limitations, the price at which our common units will trade could be diminished because of the absence or reduction of a takeover premium in the trading price.

Furthermore, unitholders' voting rights are further restricted by the Partnership Agreement provision providing that any units held by a person that owns 20 percent or more of any class of units then outstanding, other than our general partner, its affiliates, their transferees, and persons who acquired such units with the prior approval of the board of directors of our general partner, cannot vote on any matter.

Our Partnership Agreement also contains provisions limiting the ability of unitholders to call meetings or to acquire information about our operations, as well as other provisions limiting the unitholders' ability to influence the manner or direction of management.

If unitholders are not both citizenship-eligible holders and rate-eligible holders, their common units may be subject to redemption.

In order to avoid (1) any material adverse effect on the maximum applicable rates that can be charged to customers by our subsidiaries on assets that are subject to rate regulation by the FERC or analogous regulatory body, and (2) any substantial risk of cancellation or forfeiture of any property, including any governmental permit, endorsement or other authorization, in which we have an interest, we have adopted certain requirements regarding those investors who may own our common units. Citizenship eligible holders are individuals or entities whose nationality, citizenship or other related status does not create a substantial risk of cancellation or forfeiture of any property, including any governmental permit, endorsement or authorization, in which we have an interest, and will generally include individuals and entities who are U.S. citizens. Rate-eligible holders are individuals or entities subject to U.S. federal income taxation on the income generated by us or entities not subject to U.S. federal income taxation on the income generated by us, so long as all of the entity's owners are subject to such taxation. If unitholders are not persons who meet the requirements to be citizenship-eligible holders and rate-

eligible holders, they run the risk of having their units redeemed by us at the market price as of the date three days before the date the notice of redemption is mailed. The redemption price will be paid in cash or by delivery of a promissory note, as determined by our general partner. In addition, if unitholders are not persons who meet the requirements to be citizenship eligible holders, they will not be entitled to voting rights.

Cost reimbursements, which will be determined in our general partner's sole discretion, and fees due our general partner and its affiliates for services provided will be substantial and will reduce our cash available for distribution.

Under our Partnership Agreement, we are required to reimburse our general partner and its affiliates for all costs and expenses that they incur on our behalf for managing and controlling our business and operations. Except to the extent specified under our omnibus agreement or our employee services agreements, our general partner determines the amount of these expenses. Under the terms of the omnibus agreement, we will be required to reimburse MPC for the provision of certain general and administrative services to us. Under the terms of our employee services agreements, we have agreed to reimburse MPC or its affiliates for the provision of certain operational and management services to us in support of our facilities. Our general partner and its affiliates also may provide us other services for which we will be charged fees as determined by our general partner. Payments to our general partner and its affiliates will be substantial and will reduce the amount of cash available for distribution to unitholders.

The control of our general partner may be transferred to a third party without unitholder consent.

There is no restriction in our Partnership Agreement on the ability of MPC to transfer its membership interest in our general partner to a third party. The new members of our general partner would then be in a position to replace the board of directors and officers of our general partner with their own choices and to control the decisions taken by the board of directors and officers.

We may issue additional units without unitholder approval, which will dilute limited unitholder interests.

At any time, we may issue an unlimited number of limited partner interests of any type, including limited partner interests that are convertible into our common units, without the approval of our unitholders and our unitholders will have no preemptive or other rights (solely as a result of their status as unitholders) to purchase any such limited partner interests. Further, neither our Partnership Agreement nor our bank revolving credit facility prohibits the issuance of additional preferred units, or other equity securities that may effectively rank senior to our common units as to distributions or liquidations. The issuance by us of additional common units, preferred units or other equity securities of equal or senior rank will have the following effects:

- our unitholders' proportionate ownership interest in us will decrease;
- it may be more difficult to maintain or increase our distributions to unitholders, and the amount of cash available for distribution on each unit may decrease;
- the ratio of taxable income to distributions may increase;
- the relative voting strength of each previously outstanding unit may be diminished; and
- the market price of our common units may decline.

MPC may sell units in the public or private markets, and such sales could have an adverse impact on the trading price of the common units.

As of February 15, 2019, MPC held 504,701,934 common units. Additionally, we have agreed to provide MPC with certain registration rights. The sale of these units in the public or private markets could have an adverse impact on the price of the common units or on any trading market that may develop.

Affiliates of our general partner, including MPC, may compete with us, and neither our general partner nor its affiliates have any obligation to present business opportunities to us.

Neither our Partnership Agreement nor our omnibus agreement will prohibit MPC or any other affiliates of our general partner, including ANDX, from owning assets or engaging in businesses that compete directly or indirectly with us. In addition, MPC and other affiliates of our general partner may acquire, construct or dispose of additional midstream assets in the future without any obligation to offer us the opportunity to purchase any of those assets. As a result, competition from MPC and other affiliates of our general partner could materially and adversely impact our results of operations and cash available for distribution to unitholders.

Our general partner has a limited call right that may require unitholders to sell common units at an undesirable time or price.

If at any time our general partner and its affiliates own more than 85 percent of our common units, our general partner will have the right, but not the obligation, which it may assign to any of its affiliates or to us, to acquire all, but not less than all, of the common units held by unaffiliated persons at a price not less than their then current market price. As a result, unitholders may be required to sell their common units at an undesirable time or price and may not receive any return on their investment. Unitholders may also incur a tax liability upon a sale of such units.

A unitholder's liability may not be limited if a court finds that unitholder action constitutes control of our business.

A general partner of a partnership generally has unlimited liability for the obligations of the partnership, except for those contractual obligations of the partnership that are expressly made non-recourse to the general partner. Our partnership is organized under Delaware law, and we conduct business in a number of other states. The limitations on the liability of holders of limited partner interests for the obligations of a limited partnership have not been clearly established in some jurisdictions. A unitholder could be liable for our obligations as if they were a general partner if a court or government agency were to determine that:

- we were conducting business in a state but had not complied with that particular state's partnership statute; or
- a unitholder's right to act with other unitholders to remove or replace the general partner, to approve some amendments to our Partnership Agreement or to take other actions under our Partnership Agreement constitute "control" of our business.

Unitholders may have to repay distributions that were wrongfully distributed to them.

Under certain circumstances, unitholders may have to repay amounts wrongfully distributed to them. Under Section 17-607 of the Delaware Revised Uniform Limited Partnership Act, we may not make a distribution to unitholders if the distribution would cause our liabilities to exceed the fair value of our assets. Delaware law provides that for a period of three years from the date of the impermissible distribution, limited partners who received the distribution and who knew at the time of the distribution that it violated Delaware law will be liable to the limited partnership for the distribution amount. Transferees of common units are liable for the obligations of the transferor to make contributions to the partnership that are known to the transferee at the time of the transfer and for unknown obligations if the liabilities could be determined from our Partnership Agreement. Liabilities to partners on account of their partnership interest and liabilities that are non-recourse to the partnership are not counted for purposes of determining whether a distribution is permitted.

The NYSE does not require a publicly traded limited partnership like us to comply with certain of its corporate governance requirements.

We list our common units on the NYSE. Because we are a publicly traded limited partnership, the NYSE does not require us to have a majority of independent directors on our general partner's board of directors or to

establish a compensation committee or a nominating and corporate governance committee. Accordingly, unitholders will not have the same protections afforded to certain corporations that are subject to all of the NYSE corporate governance requirements.

Item 1B. Unresolved Staff Comments

None

Item 2. Properties

LOGISTICS AND STORAGE

Crude Oil Pipelines

The following table sets forth certain information regarding our crude oil pipelines, as of December 31, 2018.

Pipeline Name	Diameter (inches)	Length (miles)	Capacity (mbpd) ⁽¹⁾	Associated MPC Refineries
Patoka to Lima and Canton crude pipelines				
Patoka, IL to Lima, OH	20"/22"	302	267	Detroit, MI; Canton, OH
Lima OH, to Canton, OH	12"/16"	153	84	Canton, OH
Subtotal		455	351	
Catlettsburg and Robinson crude pipelines				
Patoka, IL to Robinson, IL	20"	78	245	Robinson, IL
Patoka, IL to Catlettsburg, KY	24"/20"	406	270	Catlettsburg, KY
Subtotal		484	515	
Detroit crude pipelines				
Samaria, MI to Detroit, MI	16"	44	117	Detroit, MI
Romulus, MI to Detroit, MI(2)	16"	17	80	Detroit, MI
Subtotal		61	197	
Ozark crude pipeline				
Cushing, OK to Wood River, IL	22"	433	360	All Midwest refineries
Wood River to Patoka crude pipelines				
Wood River, IL to Patoka, IL	22"	57	360	All Midwest refineries
Roxanna, IL to Patoka, IL(3)	12"	58	94	All Midwest refineries
Subtotal		115	454	
St. James to Garyville crude pipeline				
St. James, LA to Garyville, LA	30"	20	620	Garyville, LA
Inactive pipelines		49	N/A	
Total		1,617	2,497	

⁽¹⁾ Capacity shown is 100 percent of the capacity of these pipelines and based on physical barrels.

⁽²⁾ Includes approximately 16 miles of pipeline leased from a third party.

⁽³⁾ A portion of this pipeline system is leased from a third party.

The following table sets forth certain information regarding crude oil pipelines in which we have a joint interest, as of December 31, 2018.

Pipeline Name	Diameter (inches)	Length (miles)	Ownership Interest
Bakken Pipeline			9.2%
Dakota Access Pipeline	30"	1,172	
Energy Transfer Crude Oil Company (ETCO) pipeline	30"	749	
Subtotal		1,921	
Illinois Extension	24"	168	35%
LOOP	48"	48	40.7%
LOCAP	48"	57	58.5%
Total		2,194	

Our crude oil pipeline and related assets are strategically positioned to support diverse and flexible crude oil supply options for MPC's Gulf Coast and Mid-Continent refineries, which receive imported and domestic crude oil through a variety of sources. Imported and domestic crude oil is transported to supply hubs in Wood River and Patoka, Illinois from a variety of regions, including: Cushing, Oklahoma on the Ozark pipeline; Western Canada, Wyoming and North Dakota on the Keystone, Platte, Mustang and Enbridge pipelines; and the Gulf Coast on the Capline crude oil pipeline. Our major crude oil pipelines are connected to these supply hubs and transport crude oil to refineries owned by MPC and third parties.

Product Pipelines

The following table sets forth certain information regarding our product pipelines as of December 31, 2018.

Pinalina Nama	Diameter	Length	Capacity	Associated MDC Defination
Pipeline Name	(inches)	(miles)	(mbpd) ⁽¹⁾	Associated MPC Refineries
Louisiana products pipelines	20"	70	200	C
Garyville, LA to Zachary, LA Zachary, LA to connecting pipelines ⁽⁴⁾	20" 36"	70 2		Garyville, LA
	30			Garyville, LA
Subtotal		72	389	_
Texas products pipelines				
Texas City, TX to Pasadena, TX	16"	40	215	Galveston Bay, TX
Pasadena, TX to connecting pipelines ⁽⁴⁾	36"/30"	3	N/A	Galveston Bay, TX
Subtotal		43	215	-
Ohio products pipelines				-
Bellevue 4" Products	4"	3	5	N/A
Canton, OH to East Sparta, OH ⁽²⁾⁽³⁾	6"	17		Canton, OH
Columbus Locals ⁽⁴⁾	12"	1		N/A
Cornerstone Pipeline		_	- "	- ,,
Cadiz, OH to East Sparta, OH ⁽³⁾	16"	50	198	Canton, OH
East Sparta, OH to Canton, OH	8"	9	40	Canton, OH
East Sparta, OH to Heath, OH ⁽³⁾	8"	81		Canton, OH
East Sparta, OH to Midland, PA	8"	62	32	Canton, OH
Heath, OH to Dayton, OH	<	4.00		Catlettsburg, KY;
H 4 OH E' H OH L' OH	6"	108	24	Canton, OH
Heath, OH to Findlay, OH or Lima, OH	02/102	1.40	(2)	Catlettsburg, KY;
Vanava WV ta Calumbus OH	8"/12" 14"	149 150		Canton, OH
Kenova, WV to Columbus, OH Lima Pump-Out ⁽⁴⁾	14 10"	N/A		Catlettsburg, KY N/A
RIO	8"	251		N/A N/A
Toledo, OH to Steubenville, OH	4"/6"	54		N/A
Subtotal	4 70	935	621	- 17/11
		955	021	-
Illinois products pipelines	4.011			- · · · · · · · · · · · · · · · · · · ·
Robinson, IL to Lima, OH	10"	250		Robinson, IL
Robinson, IL to Louisville, KY	16"	129		Robinson, IL
Robinson, IL to Mt. Vernon, IN ⁽⁵⁾	10" 10"	79 317	77	Robinson, IL Robinson, IL
Wood River, IL to Clermont, IN Wabash Pipeline	10	317	40	KOUIIISOII, IL
West leg—Wood River, IL to Champaign, IL	12"	130	71	Robinson, IL
East leg—Robinson, IL to Champaign, IL	12"	86		Robinson, IL
Champaign, IL to Hammond, IN ⁽⁶⁾	16"/12"	140		Robinson, IL
Subtotal		1,131	513	-
				-
Michigan product pipelines	433	10		27/4
Detroit LPG—Woodhaven #1 Detroit LPG—Woodhaven #2	4" 4"	12		N/A N/A
	4	14		- IV/A
Subtotal		26	12	-
Kentucky products pipeline	8"/6"	1.4	20	Dohingon II
Louisville, KY to Louisville International Airport Louisville, KY to Lexington, KY ⁽⁷⁾	8"	14 87		Robinson, IL N/A
Subtotal	o	101	66	- IV/A
				-
Tennessee products pipeline	022/1022	2	(0	NT/A
Nashville Bordeaux to Nashville 51st ⁽⁸⁾	8"/12"	2 140	60 N/A	N/A
Inactive pipelines ⁽⁹⁾				-
Total		2,450	1,876	<u> </u>
		_		

- (1) Capacity shown is 100 percent of the capacity of these pipelines and based on physical barrels.
- (2) Consists of two separate approximately 8.5 mile pipelines.
- (3) This pipeline is bi-directional.
- (4) Capacity not shown, as the pipeline is designed to meet outgoing capacity for connecting pipelines.
- (5) This pipeline is leased from a third party.
- (6) Capacity not shown for 16 miles on this pipeline due to complexities associated with bi-directional capability.
- (7) We own a 65 percent undivided joint interest in the Louisville, KY to Lexington, KY system.
- (8) This pipeline is leased from a third party.
- (9) Includes 77 miles of pipeline leased from a third party.

The following table sets forth certain information regarding a products pipeline in which we have a joint interest, as of December 31, 2018.

Pipeline Name	Diameter (inches)	Length (miles)	Ownership Interest
Explorer Pipeline	12"-28"	1,830	24.5%
Total		1,830	

Our product pipelines are strategically positioned to transport products from certain MPC refineries to MPC and MPLX marketing operations, as well as those of third parties. These pipelines also supply feedstocks to MPC's Gulf Coast and Mid-Continent refineries. These product pipelines are integrated with MPC's and MPLX's expansive network of refined product marketing terminals, which support MPC's integrated midstream business.

Terminal Assets

The following table sets forth certain information regarding our owned and operated terminals as of December 31, 2018.

Owned and Operated Terminals ⁽¹⁾	Number of Terminals	Tank Shell Capacity (thousand barrels)	Number of Tanks	Number of Loading Lanes
Alabama	2	443	16	4
Florida	4	3,422	65	22
Georgia	4	998	31	9
Illinois	4	1,221	33	14
Indiana	6	3,229	60	17
Kentucky	6	2,587	56	25
Louisiana	1	97	7	2
Michigan	8	2,440	73	26
North Carolina	4	1,509	34	13
Ohio	12	3,218	101	28
Pennsylvania	1	390	12	2
South Carolina	1	371	8	3
Tennessee	4	1,149	30	12
West Virginia	2	1,587	25	2
Total	59	22,661	551	179

⁽¹⁾ MPLX also operates one leased terminal and has partial ownership interest in two terminals, with a combined tank shell capacity of 1,068 mbbls.

Marine Assets

The following table sets forth certain information regarding our marine assets as of December 31, 2018. The marine business currently has an associated transportation service agreement with MPC.

Marine Vessels	Number of Boats and Barges	Capacity (thousand barrels)	Associated MPC Refineries
Inland tank barges:			Catlettsburg, KY; Garyville, LA
Less than 25,000 barrels	61	931	
25,000 barrels and over	195	5,738	
Total	256	6,669	
Inland towboats:			Catlettsburg, KY; Garyville, LA
Less than 2,000 horsepower	2		
2,000 horsepower and over	21		
Total	23		

Our fleet of boats and barges transport light products, heavy oils, crude oil, renewable fuels, chemicals and feedstocks to and from refineries and terminals owned by MPC in the Mid-Continent and Gulf Coast regions. The MRF is a full-service marine shipyard located on the Ohio River, adjacent to MPC's Catlettsburg, Kentucky refinery. The MRF is responsible for the preventive routine and unplanned maintenance of towing vessels, barges and local terminal facilities.

Refinery Assets

The following table outlines the tankage, rail and truck racks, and docks owned by us at MPC's refineries as of December 31, 2018. Each of the following assets are currently included in storage services agreements with MPC.

MPC Refinery	Tank Capacity (mbbls)	Rail Racks	Truck Racks	Docks
Galveston Bay, Texas City, Texas	18,468	1	5	14
Garyville, Louisiana	17,320	3	5	6
Catlettsburg, Kentucky	5,177	4	4	_
Robinson, Illinois	6,987	5	4	_
Detroit, Michigan	4,998	5	4	1
Canton, Ohio	2,700	4	4	
Total	55,650	22	26	21

Other L&S Assets

The following table sets forth certain information regarding our other midstream assets as of December 31, 2018, each of which currently has an associated transportation services agreement or storage services agreement with MPC.

Asset Name	Capacity (1)	Associated MPC Refineries	
LOOP ⁽²⁾	N/A	N/A	
Wood River Barge Dock	d River Barge Dock 78 mbpd Garyville, LA		
Mt. Airy Terminal ⁽³⁾	3,979 mbbls	Garyville, LA	
Canton Crude Truck Unload	2.7 mbpd	Canton, OH	
Tank Farms ⁽⁴⁾ 20,090 mbbls N/A		N/A	
Caverns	4,175 mbbls N/A		

- (1) Capacity for Tank Farms is shown as 100 percent of the available storage capacity. Capacity for the Wood River Barge Dock is shown as 100 percent of the throughput capacity. Capacity for caverns is shown as the storage commitment.
- (2) We have a 40.7 percent interest in LOOP, which includes a deep-water oil port and crude oil storage.
- (3) The Mt. Airy Terminal includes 34 tanks, 2-bay ethanol loading rack, barge dock, ship dock and 7 dock loading lines.
- (4) We own and operate 16 tank farms and operate two leased tank farms.

GATHERING AND PROCESSING

The following tables set forth certain information relating to our gas processing facilities, fractionation facilities, natural gas gathering systems, NGL pipelines and natural gas pipelines as of and for the year ended December 31, 2018. All throughputs and utilizations included are weighted-averages for days in operation.

Gas Processing Complexes

Bluestone Complex Butler County, PA 410 392 96% Harmon Creek Complex Washington County, PA 200 12 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75% 75	Plant	Location	Design Throughput Capacity (MMcf/d)	Natural Gas Throughput ⁽¹⁾ (MMcf/d)	Utilization of Design Capacity ⁽¹⁾
Harmon Creek Complex Washington County, PA 200 12 75%	Marcellus Shale:				
Houston Complex Washington County, PA 720 528 78%	Bluestone Complex	Butler County, PA	410	392	96%
Majorsville Complex Marshall County, WV 1,270 1,072 92% Mobley Complex Wetzel County, WV 920 708 77% Sherwood Complex(2) Doddridge County, WV 2,200 1,736 94% Total Marcellus Shale 5,720 4,448 88% Utica Shale: 5,720 4,448 88% Cadiz Complex(3) Harrison County, OH 525 472 90% Seneca Complex(3) Noble County, OH 800 414 52% Total Utica Shale 800 414 52% Total Utica Shale 886 67% Southern Appalachia: 886 67% Kenova Complex(4) Wayne County, WV 160 96 60% Boldman Complex(4) Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex(4)(5) Mingo County, WV 32 N/A N/A Langley, KY 325 102 31%	Harmon Creek Complex	Washington County, PA	200	12	75%
Mobley Complex Wetzel County, WV 920 708 77% Sherwood Complex(2) Doddridge County, WV 2,200 1,736 94% Total Marcellus Shale 5,720 4,448 88% Utica Shale: 80 472 90% Seneca Complex(3) Noble County, OH 800 414 52% Total Utica Shale 1,325 886 67% Southern Appalachia: 866 60% Kenova Complex(4) Wayne County, WV 160 96 60% Boldman Complex(4) Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex(4)(5) Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia(5) 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Culberson County,	Houston Complex	Washington County, PA	720	528	78%
Sherwood Complex(2) Doddridge County, WV 2,200 1,736 94%	Majorsville Complex	Marshall County, WV	1,270	1,072	92%
Total Marcellus Shale 5,720 4,448 88% Utica Shale: Cadiz Complex(³) Harrison County, OH 525 472 90% Seneca Complex(³) Noble County, OH 800 414 52% Total Utica Shale 1,325 886 67% Southern Appalachia: Kenova Complex(⁴) Wayne County, WV 160 96 60% Boldman Complex(⁴) Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex(⁴)(⁵) Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia(⁵) 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 39 21% Argo Complex <td>Mobley Complex</td> <td>Wetzel County, WV</td> <td>920</td> <td>708</td> <td>77%</td>	Mobley Complex	Wetzel County, WV	920	708	77%
Utica Shale: Cadiz Complex ⁽³⁾ Harrison County, OH 525 472 90% Seneca Complex ⁽³⁾ Noble County, OH 800 414 52% Total Utica Shale 1,325 886 67% Southern Appalachia: Kenova Complex ⁽⁴⁾ Wayne County, WV 160 96 60% Boldman Complex ⁽⁴⁾ Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex ⁽⁴⁾⁽⁵⁾ Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 20 39 21%	Sherwood Complex ⁽²⁾	Doddridge County, WV	2,200	1,736	94%
Seneca Complex(3) Noble County, OH 800 414 52% Total Utica Shale 1,325 886 67% Southern Appalachia: Kenova Complex(4) Wayne County, WV 160 96 60% Boldman Complex(4) Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex(4)(5) Mingo County, WV 32 N/A N/A Kanawha County, WV 325 102 31% Total Southern Appalachia(5) 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest(6) 1,642			5,720	4,448	88%
Total Utica Shale 1,325 886 67% Southern Appalachia: Kenova Complex ⁽⁴⁾ Wayne County, WV 160 96 60% Boldman Complex ⁽⁴⁾ Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex ⁽⁴⁾⁽⁵⁾ Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Cadiz Complex ⁽³⁾	Harrison County, OH	525	472	90%
Southern Appalachia: Kenova Complex ⁽⁴⁾ Wayne County, WV 160 96 60% Boldman Complex ⁽⁴⁾ Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex ⁽⁴⁾⁽⁵⁾ Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Seneca Complex ⁽³⁾	Noble County, OH	800	414	52%
Kenova Complex ⁽⁴⁾ Wayne County, WV 160 96 60% Boldman Complex ⁽⁴⁾ Pike County, KY 70 30 43% Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex ⁽⁴⁾⁽⁵⁾ Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%			1,325	886	67%
Cobb Complex Kanawha County, WV 65 19 29% Kermit Complex ⁽⁴⁾⁽⁵⁾ Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	* *	Wayne County, WV	160	96	60%
Kermit Complex ⁽⁴⁾⁽⁵⁾ Mingo County, WV 32 N/A N/A Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Boldman Complex ⁽⁴⁾	Pike County, KY	70	30	43%
Langley Complex Langley, KY 325 102 31% Total Southern Appalachia ⁽⁵⁾ 620 247 40% Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Cobb Complex	Kanawha County, WV	65	19	29%
Total Southern Appalachia $^{(5)}$	Kermit Complex ⁽⁴⁾⁽⁵⁾	Mingo County, WV	32	N/A	N/A
Southwest: Carthage Complex Panola County, TX 600 423 71% Western Oklahoma Complex Custer and Beckham	Langley Complex	Langley, KY	325	102	31%
Western Oklahoma Complex Custer and Beckham Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%			620	247	40%
Counties, OK 500 420 91% Hidalgo Complex Culberson County, TX 200 199 100% Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Carthage Complex	Panola County, TX	600	423	71%
Hidalgo ComplexCulberson County, TX200199 100% Argo ComplexCulberson County, TX20039 21% Javelina ComplexCorpus Christi, TX 142 107 75% Total Southwest(6) $1,642$ $1,188$ 75%	Western Oklahoma Complex	Custer and Beckham			
Argo Complex Culberson County, TX 200 39 21% Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%		Counties, OK	500	420	91%
Javelina Complex Corpus Christi, TX 142 107 75% Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Hidalgo Complex	Culberson County, TX	200	199	100%
Total Southwest ⁽⁶⁾ 1,642 1,188 75%	Argo Complex	Culberson County, TX	200	39	21%
	Javelina Complex	Corpus Christi, TX	142	107	75%
Total Gas Processing 9,307 6,769 79%	Total Southwest ⁽⁶⁾		1,642	1,188	75%
	Total Gas Processing		9,307	6,769	79%

⁽¹⁾ Natural gas throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.

- (2) The Sherwood Complex is partially owned by Sherwood Midstream LLC ("Sherwood Midstream"). We account for Sherwood Midstream as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5.
- (3) The Cadiz and Seneca Complexes are owned by MarkWest Utica EMG, L.L.C. ("MarkWest Utica EMG"). We account for MarkWest Utica EMG as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5.
- (4) A portion of the gas processed at the Boldman plant, and all of the gas processed at the Kermit plant, is further processed at the Kenova plant to recover additional NGLs.
- (5) The Kermit processing plant is operated by a third party solely to prevent liquids from condensing in the gathering and transmission pipelines upstream of our Kenova plant. We do not receive Kermit gas volume information but do receive all of the liquids produced at the Kermit Complex. As such, the design throughput capacity and the natural gas throughput has been excluded from the subtotal.
- (6) Centrahoma Processing LLC's processing capacity of 550 MMcf/d and actual throughput of 249 MMcf/d, that exceeded our 40 percent share of the capacity of 220 MMcf/d, are not included in this table as we own a non-operating interest.

Fractionation & Condensate Stabilization Facilities

Facility	Location	Design Throughput Capacity (mbpd)	NGL Throughput ⁽¹⁾ (mbpd)	Utilization of Design Capacity ⁽¹⁾
Marcellus Shale:				
Bluestone Complex ⁽²⁾	Butler County, PA	47	22	47%
Houston Complex ⁽²⁾	Washington County, PA	60	61	102%
Total Marcellus Shale		107	83	78%
Hopedale Complex ⁽²⁾⁽³⁾ <i>Utica Shale:</i>	Harrison County, OH	240	158	86%
Ohio Condensate Complex ⁽⁴⁾	Harrison County, OH	23	12	52%
Total Utica Shale Southern Appalachia:		23	12	52%
Siloam Complex ⁽⁵⁾	South Shore, KY	24	15	63%
Total Southern Appalachia Southwest:		24	15	63%
Javelina Complex	Corpus Christi, TX	11	11	100%
Total Southwest		11	11	100%
Total C3+ Fractionation and Condensate Stabilization		405	279	80%

- (1) NGL throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.
- Our Houston, Hopedale and Bluestone Complexes have above-ground NGL storage with a usable capacity of 938 thousand barrels, large-scale truck and rail loading. In addition, our Houston Complex has large-scale truck unloading. We also have access to up to an additional 800 thousand barrels of propane storage capacity that can be utilized by our assets in the Marcellus Shale, Utica Shale, and Appalachia region under an agreement with a third party. Lastly, we have up to 240 thousand barrels of propane storage with third parties that can be utilized by our assets in the Marcellus Shale and Utica Shale.

- (3) The Hopedale Complex is jointly owned by MarkWest Ohio Fractionation Company, L.L.C. ("Ohio Fractionation") and MarkWest Utica EMG. Ohio Fractionation is a joint venture between MarkWest Liberty Midstream & Resources, L.L.C. ("MarkWest Liberty Midstream") and Sherwood Midstream (a joint venture between MarkWest Liberty and Antero Midstream LLC). MarkWest Liberty Midstream and Sherwood Midstream are entities that operate in the Marcellus region, and MarkWest Utica EMG is an entity that operates in the Utica region. The Marcellus Operations include its portion utilized of the jointly owned Hopedale Fractionation Complex. The Utica Operations includes Utica's portion utilized of the jointly owned Hopedale Fractionation Complex. Additionally, Sherwood Midstream has the right to fractionation revenue and the obligation to pay expenses related to 20 mbpd of capacity in the Hopedale 3 fractionator.
- (4) The Ohio Condensate Complex has up to 100 thousand barrels of condensate storage. The Ohio Condensate Complex is partially-owned by MarkWest Utica EMG Condensate, L.L.C. We account for Ohio Condensate as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5.
- Our Siloam Complex has both above-ground, pressurized NGL storage facilities, with usable capacity of 48 thousand barrels, and underground storage facilities, with usable capacity of 238 thousand barrels. Product can be received by truck, pipeline or rail and can be transported from the facility by truck, rail or barge. This facility has large-scale truck and rail loading and unloading capabilities, and a river barge facility capable of loading a 20 thousand barrel barge.

De-ethanization Facilities

Facility	Location	Design Throughput Capacity (mbpd)	NGL Throughput ⁽¹⁾ (mbpd)	Utilization of Design Capacity ⁽¹⁾
Marcellus Shale:				
Bluestone Complex	Butler County, PA	34	20	59%
Harmon Creek Complex	Washington County, PA	20	1	28%
Houston Complex	Washington County, PA	40	37	93%
Majorsville Complex	Marshall County, WV	80	67	84%
Mobley Complex	Wetzel County, WV	10	10	100%
Sherwood Complex	Doddridge County, WV	60	36	86%
Total Marcellus Shale <i>Utica Shale:</i>		244	171	82%
Cadiz Complex ⁽²⁾	Harrison County, OH	40	14	35%
Total Utica Shale Southwest:		40	14	35%
Javelina Complex	Corpus Christi, TX	18	7	39%
Total Southwest		18	7	39%
Total De-ethanization		302	192	72%

- (1) NGL throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.
- (2) The Cadiz Complex is owned by MarkWest Utica EMG. We account for MarkWest Utica EMG as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5.

Natural Gas Gathering Systems

System	Location	Design Throughput Capacity (MMcf/d)	Natural Gas Throughput ⁽¹⁾ (MMcf/d)	Utilization of Design Capacity ⁽¹⁾
Marcellus Shale:				
Bluestone System	Butler County, PA	227	183	81%
Houston System	Washington County, PA	1,304	972	79%
Total Marcellus Shale <i>Utica Shale:</i>		1,531	1,155	79%
Ohio Gathering System ⁽²⁾	Harrison, Monroe, Belmont, Guernsey and			
	Noble Counties, OH	1,123	764	68%
Jefferson Gas System ⁽³⁾	Jefferson County, OH	2,000	1,045	75%
Total Utica Shale Southwest		3,123	1,809	72%
East Texas System	Harrison and Panola Counties, TX	680	476	70%
Western Oklahoma System	Wheeler County, TX and Roger Mills, Ellis, Dewey, Custer, Beckham, Washita, Kingfisher, Canadian, and Blaine			
Southeast Oklahoma System	Counties OK Hughes, Pittsburg and	585	455	78%
	Coal Counties, OK	755	585	77%
Eagle Ford System	Dimmit County, TX	45	42	93%
Other Systems ⁽⁴⁾	Various	60	9	15%
Total Southwest		2,125	1,567	74%
Total Natural Gas Gathering		6,779	4,531	74%

⁽¹⁾ Natural gas throughput is a weighted average for days in operation. The utilization of design capacity has been calculated using the weighted average design throughput capacity.

⁽²⁾ The Ohio Gathering System is owned by Ohio Gathering Company, L.L.C. ("Ohio Gathering"). We account for our investment in Ohio Gathering through MarkWest Utica EMG, which is accounted for as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5.

⁽³⁾ The Jefferson Gas System is owned by MarkWest EMG Jefferson Dry Gas Gathering Company, L.L.C. ("Jefferson Dry Gas"), which is a joint venture between MarkWest Liberty Midstream and EMG MWE Dry Gas Holdings, LLC. We account for Jefferson Dry Gas as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5.

⁽⁴⁾ Excludes lateral pipelines where revenue is not based on throughput.

NGL Pipelines

Pipeline	Location	Design Throughput Capacity (mbpd)	NGL Throughput (mbpd)	Utilization of Design Capacity
Marcellus Shale:				
Sherwood to Mobley propane and heavier liquids pipeline	Doddridge County, WV to Wetzel County, WV	75	71	95%
Mobley to Majorsville propane and heavier liquids pipeline	Wetzel County, WV to Marshall County, WV	105	97	92%
Majorsville to Houston propane and heavier liquids pipeline	Marshall County, WV to Washington County, PA	45	30	67%
Majorsville to Hopedale propane and heavier liquids pipeline	Marshall County, WV to Harrison County, OH	140	124	89%
Majorsville to Hopedale propane and heavier liquids pipeline Third-party processing plant to	Marshall County, WV to Harrison County, OH	422	143	34%
Bluestone ethane and heavier liquids pipeline Bluestone to Mariner West	Butler County, PA Butler County, PA to	32	8	25%
ethane pipeline Sarsen to Bluestone ethane and	Beaver County, PA	35	20	57%
heavier liquids pipeline Houston to Ohio River ethane	Butler County, PA Washington County, PA	7	2	29%
pipeline ⁽¹⁾ Majorsville to Houston ethane	to Beaver County, PA Marshall County, WV to	57	13	23%
pipeline Sherwood to Mobley ethane	Washington County, PA Doddridge County, WV to	137	113	82%
pipeline Mobley to Majorsville ethane	Wetzel County, WV Wetzel County, WV to	47	35	74%
pipeline Harmon Creek to Houston	Marshall County, WV	57	45	79%
propane and heavier liquids			_	
pipeline Harmon Creek to Mariner West	Washington County, PA Washington County, PA	140	9	6%
ethane pipeline <i>Utica Shale:</i> ⁽²⁾		110	6	5%
Seneca to Cadiz propane and heavier liquids pipeline Cadiz to Hopedale propane and	Noble County, OH to Harrison County, OH	75	10	13%
heavier liquids pipeline	Harrison County, OH	90	32	36%
Seneca to Cadiz ethane and heavier liquids pipeline ⁽³⁾	Noble County, OH to Harrison County, OH	69/82	15	18%
Cadiz to Atex ethane pipeline	Harrison County, OH	125	4	3%
Cadiz to Utopia ethane pipeline <i>Appalachia:</i>	Harrison County, OH	125	11	9%
Langley to Siloam propane and heavier liquids pipeline ⁽⁴⁾ Southwest:	Langley, KY to South Shore, KY	17	11	65%
East Texas propane and heavier liquids pipeline	Panola County, TX	39	22	56%

- (1) This is a section of the Mariner West pipeline which is FERC-regulated and is leased to, and operated by, Sunoco.
- (2) The Utica Shale pipelines are owned by MarkWest Utica EMG. We account for MarkWest Utica EMG as an equity method investment. See discussion in Item 8. Financial Statements and Supplementary Data—Note 5
- (3) This pipeline from Seneca to Cadiz can only be used for either propane and heavier liquids or ethane and heavier liquids at one time. Both throughput capacities are listed above, respectively, with ethane included in the total.
- (4) NGLs transported through the Langley to Ranger and Ranger to Kenova pipelines are combined with NGLs recovered at the Kenova Complex. The design capacity and volume reported for the Langley to Siloam pipeline represent the combined NGL stream.

Title to Properties

Substantially all of our pipelines are constructed on rights-of-way granted by the apparent record owners of the property and in some instance these rights-of-way are revocable at the election of the grantor. In many instances, lands over which pipeline rights-of-way have been obtained may be subject to prior liens that have not been subordinated to the right-of-way grants, as well as potential conflicts with other mineral or surface use owners. We have obtained, where determined necessary, permits, leases, license agreements and franchise ordinances from public authorities to cross over or under, or to lay facilities in or along water courses, county roads, municipal streets and state highways, as applicable, and in some instances, these permits are revocable at the election of the grantor. We also have obtained easements and license agreements from railroad companies to cross over or under railroad properties or rights-of-way, many of which are also revocable at the election of the grantor. We believe that our properties and facilities are adequate for our operations and that our facilities are adequately maintained. In addition, our L&S segment leases vehicles, building spaces, and pipeline equipment under long-term operating leases, most of which include renewal options. Our L&S segment also leases certain pipelines under a capital lease that has a fixed price purchase option in 2020. Many of our compression, processing, fractionation and other facilities, including our Siloam, Houston and Hopedale fractionation plants, and certain of our pipelines and other facilities, are on land that we either own in fee or that is held under longterm leases, but for any such facilities that are on land that we lease, including our Majorsville, Sarsen, Bluestone, Boldman, Kermit and Cobb processing facilities, we could be required to remove our facilities upon the termination or expiration of the leases.

Some of the leases, easements, rights-of-way, permits, licenses and franchise ordinances that were transferred to us required the consent of the then-current landowner to transfer these rights, which in some instances was a governmental entity. We believe that we have obtained sufficient third-party consents, permits and authorizations for the transfer of the assets necessary for us to operate our business. We also believe we have satisfactory title or other right to all of our material land assets. Title to these properties is subject to encumbrances in some cases, such as coal, that may require payment to other holders of title in the property at issue; however, we believe that none of these burdens will materially detract from the value of these properties or from our interest in these properties, or will materially interfere with their use in the operation of our business. See Item 8. Financial Statements and Supplementary Data—Note 23, for additional information regarding our leases.

Under the omnibus agreement, MPC indemnifies us for certain title defects and for failures to obtain certain consents and permits necessary to conduct our business with respect to the assets contributed to us by MPC. Although title to these properties is subject to encumbrances in some cases, such as customary interests generally retained in connection with acquisition of real property, liens that can be imposed in some jurisdictions for government-initiated action to clean up environmental contamination, liens for current taxes and other burdens, and easements, restrictions and other encumbrances to which the underlying properties were subject at the time of acquisition by our Predecessor or us, we believe that none of these burdens should materially detract from the value of these properties or from our interest in these properties or should materially interfere with their use in the operation of our business.

Item 3. Legal Proceedings

Legal Proceedings

We are the subject of, or a party to, a number of pending or threatened legal actions, contingencies and commitments involving a variety of matters, including laws and regulations relating to the environment.

Litigation

We are a party to a number of lawsuits and other proceedings and cannot predict the outcome of every such matter with certainty. While it is possible that an adverse result in one or more of the lawsuits or proceedings in which we are a defendant could be material to us, based upon current information and our experience as a defendant in other matters, we believe that these lawsuits and proceedings, individually or in the aggregate, will not have a material adverse effect on our consolidated results of operations, financial position or cash flows.

MPLX, MarkWest, MarkWest Liberty Midstream, MarkWest Liberty Bluestone, L.L.C., Ohio Fractionation and MarkWest Utica EMG (collectively, the "MPLX Parties") are parties to various lawsuits with Bilfinger Westcon, Inc. ("Westcon") that were instituted in 2016 and 2017 in the Court of Common Pleas in Butler County, Pennsylvania, the Circuit Court in Wetzel County, West Virginia, and the Court of Common Pleas in Harrison County, Ohio. The lawsuits relate to disputes regarding construction work performed by Westcon at the Bluestone, Mobley and Cadiz processing complexes in Pennsylvania, West Virginia and Ohio, respectively, and the Hopedale fractionation complex in Ohio. With respect to work performed by Westcon at the Mobley and Bluestone processing complexes, one or more of the MPLX Parties have asserted breach of contract, fraud, and with respect to work performed at the Mobley processing complex, MarkWest Liberty Midstream has also asserted negligent misrepresentation claims against Westcon. Westcon has also asserted claims against one or more of the MPLX Parties regarding these construction projects for breach of contract, unjust enrichment, promissory estoppel, fraud and constructive fraud, tortious interference with contractual relations, and civil conspiracy. Collectively, in the several cases, the MPLX Parties seek in excess of \$10 million, plus an unspecified amount of punitive damages. Collectively, in the several cases, Westcon seeks in excess of \$40 million, plus an unspecified amount of punitive damages. It is possible that, in connection with these lawsuits, the MPLX Parties will incur material amounts of damages. While the ultimate outcome and impact to MPLX cannot be predicted with certainty, MPLX does not consider it reasonably possible that a loss resulting from such lawsuits or other proceedings in excess of any amounts accrued has been incurred that is expected to have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

In 2003, the State of Illinois brought an action against the Premcor Refining Group, Inc. ("Premcor") and Apex Refining Company ("Apex") asserting claims for environmental cleanup related to the refinery owned by these entities in the Hartford/Wood River, Illinois area. In 2006, Premcor and Apex filed third-party complaints against numerous owners and operators of petroleum products facilities in the Hartford/Wood River, Illinois area, including Marathon Pipe Line LLC ("MPL"). These complaints, which have been amended since filing, assert claims of common law nuisance and contribution under the Illinois Contribution Act and other laws for environmental cleanup costs that may be imposed on Premcor and Apex by the State of Illinois. On September 6, 2016, the trial court approved a settlement between Apex and the State of Illinois whereby Apex agreed to settle all claims against it for a \$10 million payment. Premcor filed a motion for permissive appeal and requested a stay to the proceeding until the motion is ruled upon. Premcor reached a settlement with the State of Illinois in the second quarter of 2018, which has been objected to by certain third-party defendants, including MPL, and is subject to court approval. Several third-party defendants in the litigation including MPL have asserted crossclaims in contribution against the various third-party defendants. This litigation is currently pending in the Third Judicial Circuit Court, Madison County, Illinois. The trial concerning Premcor's claims against third-party defendants, including MPL, previously scheduled to commence September 10, 2018, has been postponed and a new trial date has not been set. While the ultimate outcome and impact to MPLX cannot be predicted with certainty, MPLX does not consider it reasonably possible that a loss resulting from such lawsuits or other proceedings in excess of any amounts accrued has been incurred that is expected to have a material adverse effect on its consolidated financial position, results of operations, or cash flows. Under the omnibus agreement, MPC will indemnify MPLX for the full cost of any losses should MPL be deemed responsible for any damages in this lawsuit.

Environmental Proceedings

As previously reported, MarkWest Liberty Midstream, Ohio Fractionation and MarkWest Utica EMG, together with other MarkWest affiliates, agreed to pay a penalty of approximately \$0.9 million, undertake certain monitoring and emission reduction projects at certain facilities with an estimated cost of approximately \$3.3 million, and implement certain process enhancements for its and its affiliates' leak detection and repair programs at its gas processing and fractionation sites. On November 1, 2018, MPLX and 11 of its subsidiaries entered into a Consent Decree with the EPA, the State of Oklahoma, the Pennsylvania Department of Environmental Protection and the State of West Virginia resolving these issues. The Consent Decree was approved by the court on January 8, 2019 and the penalty has been paid.

We are involved in a number of other environmental proceedings arising in the ordinary course of business. While the ultimate outcome and impact on us cannot be predicted with certainty, we believe the resolution of these environmental proceedings will not have a material adverse effect on our consolidated results of operations, financial position or cash flows.

Item 4. Mine Safety Disclosure

Not applicable

Part II

Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Our common limited partner units are listed on the NYSE and traded under the symbol "MPLX". As of February 15, 2019, there were 290 registered holders of 289,456,914 outstanding common units held by the public, including 288,356,605 common units held in street name. In addition, as of February 15, 2019, MPC and its affiliates owned 504,701,934 of our common units, constituting approximately 64 percent of the outstanding common units. In addition, MPC, through our general partner owns a non-economic general partnership interest in us.

Distributions of Available Cash

Our Partnership Agreement requires that, within 60 days after the end of each quarter, we distribute all of our available cash to unitholders of record on the applicable record date.

Definition of available cash. Available cash is defined in our Partnership Agreement. Available cash generally means, for any quarter, all cash and cash equivalents on hand at the end of that quarter:

- less the amount of cash reserves established by our general partner to:
 - provide for the proper conduct of our business (including reserves for our future capital expenditures and for anticipated future credit needs);
 - · comply with applicable law, any of our debt instruments or other agreements or obligations; or
 - provide funds for distributions to our unitholders and to our general partner for any one or more of the next four quarters (provided that our general partner may not establish cash reserves for distributions if the effect of the establishment of such reserves will prevent us from distributing the minimum quarterly distribution on all common units for the current quarter);
- plus, if our general partner so determines, all or any portion of the cash on hand resulting from working capital borrowings made subsequent to the end of such quarter.

Intent to Distribute the Minimum Quarterly Distribution. Under our current cash distribution policy, we intend to make a minimum quarterly distribution to the holders of our common units of \$0.2625 per unit, or \$1.05 per unit on an annualized basis, to the extent we have sufficient cash from our operations after the establishment of cash reserves and the payment of costs and expenses, including reimbursements of expenses to our general partner. However, there is no guarantee that we will pay the minimum quarterly distribution on our units in any quarter. The amount of distributions paid under our policy and the decision to make any distribution is determined by our general partner, taking into consideration the terms of our Partnership Agreement. See Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Liquidity and Capital Resources—Debt and Liquidity Overview, for a discussion of the restrictions included in our bank revolving credit facility that may restrict our ability to make distributions.

Preferred Unit Distributions

The holders of the preferred units received cumulative quarterly distributions equal to \$0.528125 per unit for each quarter prior to the second quarter of 2018. Beginning with the second quarter of 2018, the holders of the preferred units are entitled to receive a quarterly distribution equal to the greater of \$0.528125 per unit or the amount of distributions they would have received on an as converted basis. MPLX may not pay any distributions for any quarter on any junior securities, including any of the common units, unless the distribution payable to the preferred units with respect to such quarter, together with any previously accrued and unpaid distributions to the preferred units, have been paid in full.

Recent Sales of Unregistered Units

In connection with the issuance of 6,845 common units upon the vesting of phantom units under the MPLX LP 2012 Incentive Compensation Plan, our general partner purchased 140 general partner units for \$5,012 in cash during the first quarter of 2018, to maintain its two percent general partner interest in us. The general partner units were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act of 1933, as amended.

On February 1, 2018, in connection with the Refining Logistics and Fuels Distribution acquisition, we issued 2,277,778 general partner units to our general partner. The general partner units were issued in reliance on an exemption from registration under Section 4(a)(2) of the Securities Act of 1933, as amended.

Item 6. Selected Financial Data

The following table shows selected historical consolidated financial data of MPLX LP as of the dates and for the years indicated. The following table also presents the non-GAAP financial measures of Adjusted EBITDA and DCF, which we use in our business. For the definitions of Adjusted EBITDA and DCF and a reconciliation to our most directly comparable financial measures calculated and presented in accordance with GAAP, see Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Non-GAAP Financial Information and Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations—Results of Operations.

(In millions, except per unit data)	2018	2017	2016	2015	2014
Consolidated Statements of Income Data					
Total revenues and other income	\$ 6,425	\$ 3,867	\$ 3,029	\$ 1,101	\$ 793
Income from operations	2,503	1,191	683	381	245
Net income	1,834	836	434	333	239
Net income attributable to MPLX LP	1,818	794	233	156	121
Limited partners' interest in net income					
attributable to MPLX LP	1,743	411	1	99	115
Per Unit Data					
Net income attributable to MPLX LP per					
limited partner unit:					
Common—basic	2.29	1.07		1.23	1.55
Common—diluted	2.29	1.06	_	1.22	1.55
Subordinated—basic and diluted	_			0.11	1.50
Cash distributions declared per limited					
partner common unit	2.5300	2.2975	2.0500	1.8200	1.4100
Consolidated Balance Sheets Data (at period end)					
Property, plant and equipment, net	14,639	12,187	11,408	10,214	1,324
Total assets	22,779	19,500	17,509	16,404	1,544
Long-term debt, including capital leases(1)	13,392	6,945	4,422	5,255	644
Redeemable preferred units	1,004	1,000	1,000	_	_
Consolidated Statements of Cash Flows Data					
Net cash provided by (used in):					
Operating activities	2,826	1,907	1,491	427	335
Investing activities	(2,686)	(2,308)	(1,417)	(1,681)	(140)
Financing activities	(73)	171	113	1,275	(225)
Additions to property, plant and equipment(2)	1,919	1,411	1,313	334	141
Other Financial Data					
Adjusted EBITDA attributable to MPLX					
LP(3)(4)	3,475	2,004	1,419	498	166
DCF attributable to MPLX LP ⁽³⁾⁽⁴⁾	2,781	1,628	1,140	399	137
Cash distributions declared on limited partner					
common units	\$ 1,985	\$ 895	\$ 692	\$ 255	\$ 106

⁽¹⁾ During 2015, in connection with the MarkWest Merger, MPLX LP assumed MarkWest senior notes with an aggregate principal amount of \$4.1 billion and used its credit facility to repay \$850 million of the \$943 million of borrowings under MarkWest's credit facility.

⁽²⁾ Represents cash capital expenditures as reflected on the Consolidated Statements of Cash Flows for the periods indicated, which are included in cash used in investing activities.

The 2015 Adjusted EBITDA attributable to MPLX LP includes pre-merger EBITDA from MarkWest and the 2015 DCF includes undistributed DCF from MarkWest.

⁽⁴⁾ For all years presented, Predecessor is excluded from Adjusted EBITDA attributable to MPLX LP and DCF attributable to MPLX LP.

Operating Data

		2018	2017		2016		2015		2014
L&S Crude oil transported for (mbpd) ⁽¹⁾ : MPC		1,833		1,622		1,461		1,443	838
Third parties		347		314		182		197	203
Total % MPC		2,180 84%		1,936 84%		1,643 89%		1,640 88%	1,041 80%
Products transported for (mbpd) ⁽²⁾ : MPC ⁽³⁾ Third parties		1,003 172		928 157		844 146		966 27	852 26
Total % MPC		1,175 85%		1,085 86%		990 85%		993 97%	878 97%
Average tariff rates (\$ per Bbl) ⁽⁴⁾ : Crude oil pipelines Product pipelines Total pipelines	\$ \$	0.59 0.79 0.66	\$ \$	0.56 0.74 0.63	\$	0.57 0.68 0.61	\$	0.55 0.65 0.59	\$ 0.64 0.61 \$ 0.63
Terminal throughput (mbpd) ⁽⁵⁾		1,481		1,477		1,505		N/A	N/A
Marine Assets (number in operation) ⁽⁶⁾ Barges Towboats		256 23		232 18		222 18		219 18	211 18
		2018		2017		2016		2015	2014
G&P Consolidated entities ⁽⁸⁾ Gathering Throughput (MMcf/d) Marcellus Operations Utica Operations		1,155		1,004		910		889 —	
Southwest Operations		1,566		1,410		1,431		1,439	
Total gathering throughput		2,721		2,414		2,341		2,328	
Natural Gas Processed (MMcf/d) Marcellus Operations Utica Operation		3,826		3,619		3,210		2,964	
Southwest Operations		1,438		1,326		1,226		1,125	
Southern Appalachian Operations		247		265		253		243	
Total natural gas processed		5,511		5,210		4,689		4,332	
C2 + NGLs Fractionated (mbpd) Marcellus Operations ⁽¹⁰⁾ Utica Operations		379		320		260		220	
Southwest Operations		18		20		18		24	
Southern Appalachian Operations(11)		15		14		15		12	
Total C2 + NGLs fractionated ⁽¹²⁾		412		354		293		256	

	2018	2018 2017		2016		2015(7)		2014
G&P Consolidated entities plus Partnership-Operated Equity Method Investments ⁽⁹⁾								
Gathering Throughput (MMcf/d)								
Marcellus Operations	1,155		1,004		910		889	
Utica Operations	1,809		1,192		932		745	
Southwest Operations	1,567		1,412		1,433		1,441	
Total gathering throughput	4,531		3,608		3,275		3,075	
Natural Gas Processed (MMcf/d)								
Marcellus Operations	4,448		3,885		3,210		2,964	
Utica Operations	886		984		1,072		1,136	
Southwest Operations	1,438		1,326		1,226		1,125	
Southern Appalachian Operations	247		265		253		243	
Total natural gas processed	7,019		6,460		5,761		5,468	
C2 + NGLs Fractionated (mbpd)								
Marcellus Operations ⁽¹⁰⁾	379		320		260		220	
Utica Operations(10)	47		40		42		51	
Southwest Operations	18		20		18		24	
Southern Appalachian Operations(11)	 15		14		15		12	
Total C2 + NGLs fractionated ⁽¹²⁾	459		394		335		307	
	2018		2017	2016		2015		2014
Pricing Information								
Natural Gas NYMEX HH (\$/MMBtu)	\$ 3.07	\$	3.02	\$	2.55	\$	2.04	
C2 + NGL Pricing/Gal ⁽¹³⁾	\$ 0.78	\$	0.66	\$	0.47	\$	0.40	

- (1) Represents the average aggregate daily number of barrels of crude oil transported on our pipelines and at our Wood River barge dock for MPC and for third parties. Volumes shown are 100 percent of the volumes transported on the pipelines and barge dock.
- (2) Represents the average aggregate daily number of barrels of products transported on our pipelines for MPC and third parties. Volumes shown are 100 percent of the volumes transported on the pipelines.
- (3) Includes volumes shipped by MPC on various pipelines under joint tariffs with third parties. For accounting purposes, revenue attributable to these volumes is classified as third-party revenue because we receive payment from those third parties with respect to volumes shipped under the joint tariffs; however, the volumes associated with this revenue are applied towards MPC's minimum quarterly volume commitments on the applicable pipelines because MPC is the shipper of record.
- (4) Average tariff rates calculated using pipeline transportation revenues divided by pipeline throughput barrels.
- (5) Throughput reported for 2016 represents average volumes for the nine months beginning April 1, 2016.
- (6) Represents total at the end of the period.
- (7) G&P volumes reported for 2015 represent the average volumes after the close of the MarkWest Merger.
- (8) This table represents operating data for entities that have been consolidated into the MPLX financial statements.
- (9) This table represents operating data for entities that have been consolidated into the MPLX financial statements as well as operating data for MPLX-operated equity method investments.
- (10) Hopedale is jointly owned by Ohio Fractionation and MarkWest Utica EMG. Ohio Fractionation is a subsidiary of MarkWest Liberty Midstream. MarkWest Liberty Midstream and MarkWest Utica EMG are entities that operate in the Marcellus and Utica regions, respectively. The Marcellus Operations includes its portion utilized of the jointly owned Hopedale Fractionation Complex. The Utica Operations includes

- Utica's portion utilized of the jointly owned Hopedale Fractionation Complex. Additionally, Sherwood Midstream has the right to fractionation revenue and the obligation to pay expenses related to 20 mbpd of capacity in the Hopedale 3 fractionator.
- (11) Includes NGLs fractionated for the Marcellus and Utica Operations.
- Purity ethane makes up approximately 171 mbpd, 141 mbpd, 114 mbpd and 83 mbpd of MPLX LP consolidated total fractionated products for the years ended December 31, 2018, 2017, 2016 and 2015, respectively. Purity ethane makes up approximately 185 mbpd, 146 mbpd, 118 mbpd and 89 mbpd of MPLX operated total fractionated products for the years ended December 31, 2018, 2017, 2016 and 2015, respectively.
- (13) C2 + NGL pricing based on Mont Belvieu prices assuming an NGL barrel of approximately 35 percent ethane, 35 percent propane, six percent Iso-Butane, 12 percent normal butane and 12 percent natural gasoline.

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

All statements in this section, other than statements of historical fact, are forward-looking statements that are inherently uncertain. See "Disclosures Regarding Forward-Looking Statements" and "Risk Factors" for a discussion of the factors that could cause actual results to differ materially from those projected in these statements. The following information concerning our business, results of operations and financial condition should also be read in conjunction with the information included under Item 1. Business, Item 6. Selected Financial Data and Item 8. Financial Statements and Supplementary Data.

MPLX OVERVIEW

We are a diversified, large-cap MLP formed by MPC, that owns and operates midstream energy infrastructure and logistics assets, and provides fuels distribution services. We are engaged in the transportation, storage and distribution of crude oil and refined petroleum products; gathering, processing and transportation of natural gas; and the gathering, transportation, fractionation, storage and marketing of NGLs. Our operations are conducted in our Logistics and Storage and Gathering and Processing segments.

SIGNIFICANT FINANCIAL AND OTHER HIGHLIGHTS

During 2018, we were able to focus and execute on our strategic vision by growing our business across the midstream value chain and investing in new or existing assets to enhance the stability of our cash flows, while at the same time simplifying our financial structure and maintaining our investment grade credit profile. Significant financial and other highlights for the year ended December 31, 2018, are listed below. Refer to the Results of Operations and the Liquidity and Capital Resources sections for further details.

- L&S Segment Adjusted EBITDA attributable to MPLX LP increased approximately \$1,282 million, or
 165 percent, in 2018 compared to 2017. This increase was primarily due to \$944 million of Segment
 Adjusted EBITDA generated by Refining Logistics and Fuels Distribution following the February 1, 2018
 acquisition; an additional \$159 million of Segment Adjusted EBITDA due to increased distributions and
 other adjustments from equity method investments including the joint venture with Enbridge Energy
 Partners L.P. ("MarEn Bakken") and the Joint-Interest Acquisition; as well as increased transportation
 revenues due to higher rates and volumes of crude and refined products shipped.
- G&P Segment Adjusted EBITDA attributable to MPLX LP increased approximately \$189 million, or 15 percent, in 2018 compared to 2017. This increase was primarily due to \$140 million of Segment Adjusted EBITDA from increased gathered, processed and fractionated volumes, which drove higher utilization rates and higher fee-based revenue in the Marcellus and Southwest. These increases are a result of expansions at the Houston, Majorsville, Harmon Creek and Argo facilities. Increased prices in the Marcellus, Northeast and Southwest also resulted in higher Segment Adjusted EBITDA of approximately \$45 million. Further, there was an increase in distributions from unconsolidated affiliates of \$57 million and an increase in derivative gains of \$12 million which was offset by increased facility and operating expenses as well as employee related costs of \$65 million. Compared to full-year 2017, gathering volumes were up 26 percent, processing volumes were up nine percent and fractionated volumes were up 16 percent.

Additional highlights for the year ended December 31, 2018, including a look ahead to anticipated growth, are listed below.

Dropdown Acquisition from MPC

On February 1, 2018, we acquired Refining Logistics and Fuels Distribution from MPC in exchange for \$4.1 billion in cash and a fixed number of common units and general partner units of 111.6 million and

2.3 million, respectively. The general partner units maintained MPC's two percent economic general partner interest, which converted into a non-economic general partner interest immediately thereafter in the GP IDR Exchange. This dropdown acquisition was the last in a series of three planned dropdown transactions announced by MPC in early 2017. Refining Logistics contains the integrated tank farm assets that support MPC's refining operations and includes 619 tanks with approximately 56 million barrels storage capacity (crude, finished products and intermediates), 32 rail and truck racks, 18 docks, and gasoline blenders. Fuels Distribution is structured to provide a broad range of scheduling and marketing services as an agent to MPC.

Other Significant Acquisitions and Investments

- On October 17, 2018, MPLX announced it is jointly developing with Crimson Midstream LLC ("Crimson") a multi-diameter pipeline to provide connectivity from St. James and Raceland, Louisiana to the Louisiana Offshore Oil Port LLC terminal in Clovelly, Louisiana. The proposed pipeline would have the ability to transport up to 600 mbpd of crude oil and has an expected in-service date in the first half of 2020.
- On September 26, 2018, MPLX acquired the Mt. Airy Terminal with 4 million barrels of third-party leased storage capacity and a 120 mbpd dock from Pin Oak Holdings, LLC for \$451 million. The facility has the capability to significantly expand its storage capacity to 10 million barrels and is permitted for construction of a second 120 mbpd dock. The facility is strategically located on the Mississippi River between New Orleans and Baton Rouge and is near several Gulf Coast refineries, including MPC's Garyville refinery. The Mt. Airy Terminal can handle multiple refined products, as well as residual fuel and bunker products, to provide optionality and flexibility of feedstocks and finished products in a single location. The Mt. Airy Terminal also has significant growth opportunities as a result of multiple pipelines and rail lines crossing the property in addition to being positioned as an aggregation point for liquids growth for both ocean-going vessels and inland barges.
- On September 4, 2018, MPLX announced it is jointly developing with Energy Transfer Partners, L.P. ("Energy Transfer"), Magellan Midstream Partners, L.P. ("Magellan") and Delek US Holdings, Inc. a new 30-inch diameter common carrier pipeline to transport crude oil from the Permian Basin to the Texas Gulf Coast region. The 600-mile pipeline system is expected to be operational in mid-2020 with multiple Texas origins and would have the strategic capability to transport crude oil to both Energy Transfer's Nederland, Texas terminal and Magellan's East Houston, Texas terminal. The ability to increase the diameter and capacity of the pipeline exists if additional commitments are received.
- On July 26, 2018, MPLX announced a number of steps it has taken to further expand its presence in the Permian Basin. These activities include development of a 200 MMcf/d gas processing plant in Loving County Texas, called the Torñado plant, as well as natural gas gathering infrastructure primarily in Lea County, New Mexico. These expansion activities are expected to be complete in the third quarter of 2019. MPLX also acquired a 10 percent equity interest in the Agua Blanca pipeline which is a 1,400 MMcf/d pipeline (which has the ability to be expanded to 2,000 MMcf/d) originating in Orla, Texas and ending in Waha, Texas. Agua Blanca is also constructing a lateral to connect our MarkWest Argo Plant, which commenced operations in early 2018.

Financing Activities

• On November 15, 2018, MPLX issued \$2.25 billion aggregate principal amount of senior notes in a public offering, consisting of \$750 million aggregate principal amount of 4.8 percent unsecured senior notes due February 2029 and \$1.5 billion aggregate principal amount of 5.5 percent unsecured senior notes due February 2049. The notes were offered at a price to the public of 99.432 percent and 98.031 percent of par, respectively. The proceeds were used to repay outstanding borrowings under the MPLX Credit Agreement and the MPC Loan Agreement, to redeem \$750 million aggregate principal amount of 5.5 percent senior notes due February 2023, as well as for general business purposes.

- On September 25, 2018, MPLX drew \$1 billion under the MPLX Credit Agreement. The proceeds were
 used to fund the acquisition of the Mt. Airy Terminal, to pay down the MPC Loan Agreement and for
 general business purposes.
- On April 27, 2018, MPLX and MPC Investment entered into an amendment to the MPC Loan Agreement to increase the borrowing capacity under the MPC Loan Agreement from \$500 million to \$1 billion.
- On February 8, 2018, MPLX issued \$5.5 billion aggregate principal amount of senior notes in a public offering, consisting of \$500 million aggregate principal amount of 3.375 percent unsecured senior notes due March 2023, \$1.25 billion aggregate principal amount of 4.0 percent unsecured senior notes due March 2028, \$1.75 billion aggregate principal amount of 4.5 percent unsecured senior notes due April 2038, \$1.5 billion aggregate principal amount of 4.7 percent unsecured senior notes due April 2048, and \$500 million aggregate principal amount of 4.9 percent unsecured senior notes due April 2058. The notes were offered at a price to the public of 99.931 percent, 99.551 percent, 98.811 percent, 99.348 percent, and 99.289 percent of par, respectively. The net proceeds were used to repay the \$4.1 billion 364-day term loan facility (as described below), the outstanding borrowings under the MPLX Credit Agreement and the MPC Loan Agreement, as well as for general business purposes.
- On February 1, 2018, immediately following the completion of the dropdown acquisitions mentioned above, our general partner's IDRs were eliminated and its two percent economic general partner interest in MPLX LP was converted into a non-economic general partner interest, all in exchange for 275 million newly issued MPLX LP common units. This exchange eliminated the general partner cash distribution requirements of MPLX.
- On February 1, 2018, in connection with the dropdown acquisition, MPLX drew \$4.1 billion on a 364-day
 term loan facility with a syndicate of lenders, which was entered into on January 2, 2018. The proceeds of
 the term loan facility were used to fund the cash portion of the dropdown consideration for Refining
 Logistics and Fuels Distribution.
- We did not make any issuances under our ATM Program during the year ended December 31, 2018.

NON-GAAP FINANCIAL INFORMATION

Our management uses a variety of financial and operating metrics to analyze our performance. These metrics are significant factors in assessing our operating results and profitability and include the non-GAAP financial measures of Adjusted EBITDA and DCF. The amount of Adjusted EBITDA and DCF generated is considered by the board of directors of our general partner in approving MPLX's cash distributions.

We define Adjusted EBITDA as net income adjusted for: (i) depreciation and amortization; (ii) provision/ (benefit) for income taxes; (iii) amortization of deferred financing costs; (iv) extinguishment of debt; (v) non-cash equity-based compensation; (vi) impairment expense; (vii) net interest and other financial costs; (viii) income/(loss) from equity method investments; (ix) distributions and adjustments related to equity method investments (x) unrealized derivative gains/(losses); (xi) acquisition costs; (xii) noncontrolling interests and (xiii) other adjustments as deemed necessary. We also use DCF, which we define as Adjusted EBITDA adjusted for: (i) deferred revenue impacts; (ii) net interest and other financial costs; (iii) maintenance capital expenditures; (iv) equity method investment capital expenditures paid out; and (v) other non-cash items. We make a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.

We believe that the presentation of Adjusted EBITDA and DCF provides useful information to investors in assessing our financial condition and results of operations. The GAAP measures most directly comparable to

Adjusted EBITDA and DCF are net income and net cash provided by operating activities. Adjusted EBITDA and DCF should not be considered alternatives to GAAP net income or net cash provided by operating activities. Adjusted EBITDA and DCF have important limitations as analytical tools because they exclude some but not all items that affect net income and net cash provided by operating activities or any other measure of financial performance or liquidity presented in accordance with GAAP. Adjusted EBITDA and DCF should not be considered in isolation or as substitutes for analysis of our results as reported under GAAP. Additionally, because Adjusted EBITDA and DCF may be defined differently by other companies in our industry, our definitions of Adjusted EBITDA and DCF may not be comparable to similarly titled measures of other companies, thereby diminishing their utility. For a reconciliation of Adjusted EBITDA and DCF to their most directly comparable measures calculated and presented in accordance with GAAP, see the Results of Operations section.

Management evaluates contract performance on the basis of Net operating margin, a non-GAAP financial measure, which is defined as segment revenue less both segment purchased product costs and realized derivative gains and losses related to purchased product costs. These charges have been excluded for the purpose of enhancing the understanding by both management and investors of the underlying baseline operating performance of our contractual arrangements, which management uses to evaluate our financial performance for purposes of planning and forecasting. Net operating margin does not have any standardized definition and, therefore, is unlikely to be comparable to similar measures presented by other reporting companies. Net operating margin results should not be evaluated in isolation of, or as a substitute for, our financial results prepared in accordance with GAAP. Our use of Net operating margin and the underlying methodology in excluding certain charges is not necessarily an indication of the results of operations expected in the future, or that we will not, in fact, incur such charges in future periods.

Management also utilizes Segment Adjusted EBITDA in evaluating the financial performance of our segments. The disclosure of this measure allows investors to understand how management evaluates financial performance to make operating decisions and allocate resources.

COMPARABILITY OF OUR FINANCIAL RESULTS

The comparability of our financial results has been impacted by acquisitions, dispositions, performance of our equity method investments, and impairments among others (see Item 8. Financial Statements and Supplementary Data—Notes 4, 5 and 15).

RESULTS OF OPERATIONS

The following table and discussion is a summary of our results of operations for the years ended 2018, 2017 and 2016, including a reconciliation of Adjusted EBITDA and DCF from net income and net cash provided by operating activities, the most directly comparable GAAP financial measures. Prior period financial information has been retrospectively adjusted for the acquisition of HSM, HST, WHC and MPLXT.

(In millions)	2018	2	2017	\$ Ch	ange	2016	\$ Change
Revenues and other income:							
Service revenue	\$ 1,704 \$	\$	1,156 \$	\$	548	\$ 958	\$ 198
Service revenue—related parties	2,159		1,082		1,077	936	146
Service revenue—product related	198				198		
Rental income	349		277		72	298	(21)
Rental income—related parties	718		279		439	235	44
Product sales	902		889		13	572	317
Product sales—related parties	49		8		41	11	(3)
Income/(loss) from equity method investments ⁽¹⁾	240		78		162	(74)	152
Other income	240 7		6		102	(74) 7	(1)
Other income—related parties	99		92		7	86	6
Total revenues and other income	 6,425		3,867		2,558	 3,029	 838
	 		3,807		2,336	 3,029	 030
Costs and expenses:	0.40		50 0		420	454	7.4
Cost of revenues (excludes items below)	948		528		420	454	74
Purchased product costs	845		651		194	448	203
Rental cost of sales	135		62		73	57	5
Rental cost of sales—related parties	5 860		2 455		3 405	388	1 67
Purchases—related parties Depreciation and amortization	766		683		83	591	92
Impairment expense	700		003		03	130	(130)
General and administrative expenses	291		241		50	227	14
Other taxes	72		54		18	50	4
Total costs and expenses	 3,922		2,676		1,246	 2,346	 330
Income from operations	2,503		1,191		1,312	683	508
Related party interest and other financial	_		_		_		
costs	5		2		3	1	1
Interest expense (net of amounts capitalized)	534		296		238	210	86
Other financial costs	 122		56		66	 50	 6
Income before income taxes	1,842		837		1,005	422	415
Provision/(benefit) for income taxes	 8		1		7	 (12)	 13
Net income	1,834		836		998	434	402
Less: Net income							
attributable to noncontrolling interests	16		6		10	2	4
Less: Net income attributable to Predecessor			36		(36)	199	 (163)
Net income attributable to MPLX LP	1,818		794		1,024	233	561
Adjusted EBITDA attributable to MPLX LP(2)	3,475		2,004		1,471	1,419	585
DCF ⁽²⁾	2,781		1,628		1,153	1,140	488
DCF attributable to GP and LP unitholders(2)	\$	\$		\$	1,143	\$ 1,099	\$ 464

⁽¹⁾ Includes an impairment expense of \$89 million related to one of MPLX's equity method investments for the year ended December 31, 2016.

Non-GAAP financial measure. See the following tables for reconciliations to the most directly comparable GAAP measures.

(In millions)	2018		2017		2016	
Reconciliation of Adjusted EBITDA attributable to MPLX LP and						
DCF attributable to GP and LP unitholders from Net income:						
Net income	\$	1,834	\$	836	\$ 434	
Provision/(benefit) for income taxes		8		1	(12)	
Amortization of deferred financing costs		59		53	46	
Loss on extinguishment of debt		46		_		
Net interest and other financial costs		556		301	215	
Income from operations		2,503		1,191	683	
Depreciation and amortization		766		683	591	
Non-cash equity-based compensation		19		15	10	
Impairment expense		_		_	130	
(Income)/loss from equity method investments ⁽¹⁾		(240)		(78)	74	
Distributions/adjustments related to equity method investments		447		231	150	
Unrealized derivative (gains)/losses ⁽²⁾		(5)		6	36	
Acquisition costs		3		11	(1)	
Adjusted EBITDA		3,493		2,059	1,673	
Adjusted EBITDA attributable to noncontrolling interests		(18)		(8)	(3)	
Adjusted EBITDA attributable to Predecessor ⁽³⁾				(47)	(251)	
Adjusted EBITDA attributable to MPLX LP		3,475		2,004	1,419	
Deferred revenue impacts		32		33	16	
Net interest and other financial costs		(556)		(301)	(215)	
Maintenance capital expenditures		(146)		(103)	(84)	
Equity method investment capital expenditures paid out		(31)		(13)	(3)	
Other		7		6	(1)	
Portion of DCF adjustments attributable to Predecessor ⁽³⁾				2	8	
DCF		2,781		1,628	1,140	
Preferred unit distributions		(75)		(65)	(41)	
DCF attributable to GP and LP unitholders	\$	2,706	\$	1,563	\$ 1,099	

⁽¹⁾ Includes an impairment expense of \$89 million related to one of MPLX's equity method investments for the year ended December 31, 2016.

⁽²⁾ MPLX makes a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.

⁽³⁾ The Adjusted EBITDA and DCF adjustments related to Predecessor are excluded from Adjusted EBITDA attributable to MPLX LP and DCF prior to the acquisition dates.

(In millions)	2018			2017		2016
Reconciliation of Adjusted EBITDA attributable to MPLX LP and DCF attributable to GP and LP unitholders from Net cash provided by operating activities:						
Net cash provided by operating activities	\$	2,826	\$	1,907	\$	1,491
Changes in working capital items	Ψ	41	Ψ	(147)	Ψ	(76)
All other, net		(45)		(28)		(16)
Non-cash equity-based compensation		19		15		10
Net (loss)/gain on disposal of assets		(2)		_		1
Net interest and other financial costs		556		301		215
Loss on extinguishment of debt		46		_		_
Current income taxes		_		2		5
Asset retirement expenditures		7		2		6
Unrealized derivative (gains)/losses ⁽¹⁾		(5)		6		36
Acquisition costs		3		11		(1)
Other adjustments to equity method investment distributions		47		(10)		2
Adjusted EBITDA		3,493		2,059		1,673
Adjusted EBITDA attributable to noncontrolling interests		(18)		(8)		(3)
Adjusted EBITDA attributable to Predecessor ⁽²⁾				(47)		(251)
Adjusted EBITDA attributable to MPLX LP		3,475		2,004		1,419
Deferred revenue impacts		32		33		16
Net interest and other financial costs		(556)		(301)		(215)
Maintenance capital expenditures		(146)		(103)		(84)
Equity method investment capital expenditures paid out		(31)		(13)		(3)
Other		7		6		(1)
Portion of DCF adjustments attributable to Predecessor ⁽²⁾				2		8
DCF		2,781		1,628		1,140
Preferred unit distributions		(75)		(65)		(41)
DCF attributable to GP and LP unitholders	\$	2,706	\$	1,563	\$	1,099

- (1) MPLX makes a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.
- The Adjusted EBITDA and DCF adjustments related to Predecessor are excluded from Adjusted EBITDA attributable to MPLX LP and DCF prior to the acquisition dates.

2018 Compared to 2017

Service revenue increased \$548 million in 2018 compared to 2017. This variance was primarily due to a \$167 million increase in fees from volume growth in the Marcellus and the Southwest areas; a \$13 million increase related to increases in volume and transportation rates of crude oil and products shipped, partially attributable to the Ozark pipeline acquisition and expansion; and an increase of \$369 million due to ASC 606 gross ups. The remainder of the change can be attributable to impacts related to ASC 606 classification changes and other miscellaneous items.

Service revenue-related parties increased \$1,077 million in 2018 compared to 2017. This variance was primarily due to a \$947 million increase from the acquisition of Refining Logistics and Fuels Distribution; a \$100 million

increase related to higher volumes and transportation rates of related-party crude oil and products shipped, partially attributable to the Ozark pipeline acquisition and expansion; a \$15 million increase from additional boats and barges; a \$10 million increase from higher terminal throughputs; and a \$12 million increase in the recognition of revenue related to volume deficiencies. These increases were partially offset by ASC 606 classification changes of \$7 million.

Service revenue-product related increased \$198 million in 2018 compared to 2017. This variance was primarily due to ASC 606 classification and non-cash changes.

Rental income increased \$72 million in 2018 compared to 2017. This variance was primarily due to a \$6 million increase from the acquisition of the Mt. Airy Terminal as well as \$65 million related to higher ASC 606 cost reimbursements.

Rental income-related parties increased \$439 million in 2018 compared to 2017. This variance was primarily due to a \$411 million increase from the acquisition of Refining Logistics with the remainder of the variance being primarily related to the acquisition of additional marine vessels and the completion of the Robinson Butane Cavern.

Product sales and product sales-related parties increased \$54 million in 2018 compared to 2017. This variance was primarily due to higher prices in the Southwest, Northeast and Marcellus of \$113 million, volume impacts of \$9 million as well as a change in unrealized gains associated with derivatives of \$10 million, driven by favorable product hedges in 2018 compared to unfavorable product hedges in 2017. These increases were partially offset by ASC 606 classification and non-cash changes of \$78 million.

Income (loss) from equity method investments increased \$162 million in 2018 compared to 2017. This variance was primarily due to the MarEn Bakken acquisition, the Joint-Interest Acquisition, growth in the Jefferson Dry Gas joint venture as a result of an increase in dry gas gathering volumes, as well as growth in the Sherwood Midstream joint venture due to additional plants coming online. This was partially offset by a decrease in our Utica EMG joint venture as a result of decreased volumes and the buy-out of an equity method investment partner.

Other income and Other income-related parties increased \$8 million in 2018 compared to 2017. This variance was primarily due to an increase in management fees from our joint ventures.

Cost of revenues increased \$420 million in 2018 compared to 2017. This variance was primarily due to ASC 606 gross-ups of \$369 million, higher repairs and maintenance and operating costs in the Marcellus and Southwest of \$32 million as well as from the acquisition of Refining Logistics and the acquisition and expansion of the Ozark pipeline.

Purchased product costs increased \$194 million in 2018 compared to 2017. This variance was primarily due to higher NGL and gas prices and volumes of approximately \$68 million and \$36 million, respectively, primarily in the Southwest and Northeast areas; and an increase due to ASC 606 imbalances and non-cash consideration of approximately \$105 million with the remaining variance being related to derivative activity.

Rental cost of sales and rental cost of sales-related parties increased \$76 million in 2018 compared to 2017. This variance was primarily due to ASC 606 gross ups of \$65 million in addition to the acquisition of Mt. Airy Terminal and increased maintenance, repairs, and operating costs.

Purchases-related parties increased \$405 million in 2018 compared to 2017. This variance was primarily due to \$372 million from the acquisition of Refining Logistics and Fuels Distribution with the remainder of the variance primarily being related to increases in employee-related costs.

Depreciation and amortization expense increased \$83 million in 2018 compared to 2017. This variance was primarily due to the acquisitions of Refining Logistics and the Mt. Airy Terminal for approximately \$76 million, as well as additions to in-service property, plant and equipment, slightly offset by accelerated depreciation expense incurred in 2017 related to decommissioned assets.

General and administrative expenses increased \$50 million in 2018 compared to 2017. This variance was primarily due to the acquisition of Refining Logistics and Fuels Distribution as well as increased labor and benefits costs.

Other taxes increased \$18 million in 2018 compared to 2017. This variance was primarily due to the acquisition of Refining Logistics as well as the Ozark pipeline acquisition and expansion.

Interest expense and other financial costs increased \$307 million in 2018 compared to 2017. This variance was primarily due to increased interest expense due to the new senior notes issued in February 2018 and November 2018 and the loss on debt extinguishment associated with the redemption of all of the outstanding 5.5 percent senior notes due February 2023.

2017 Compared to 2016

Service revenue increased \$198 million in 2017 compared to 2016. This variance was primarily due to a \$155 million increase in fees on higher volumes due to new gathering and processing facilities in the Marcellus and Southwest areas, a \$38 million increase from the acquisition of Ozark pipeline, and an \$12 million increase related to volumes of crude oil and products shipped.

Service revenue-related parties increased \$146 million in 2017 compared to 2016. This variance was primarily due to a \$41 million increase related to volumes in related-party crude oil and products shipped, a \$26 million increase from the acquisition of Ozark pipeline, and the inclusion of \$79 million of revenue generated by MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016.

Rental income decreased \$21 million in 2017 compared to 2016. This variance was primarily driven by the impact of recognizing rental income on a straight-line basis related to certain customer agreements.

Rental income-related parties increased \$44 million in 2017 compared to 2016. This variance was primarily due to the inclusion of \$24 million of revenue generated by MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016, and a \$14 million increase in HSM equipment revenue due to increased capacity as a result of acquisition or chartering of additional barges.

Product sales increased \$317 million in 2017 compared to 2016. This variance was primarily due to mainly to increased pricing of approximately \$252 million as well as higher volume growth of approximately \$61 million in the Marcellus and Southwest areas.

Income (loss) from equity method investments increased \$152 million in 2017 compared to 2016. This variance was primarily due to the inclusion of \$15 million due to the acquisition of MarEn Bakken, \$21 million due the acquisition of the joint-interest assets from MPC, and \$27 million from our other equity method investments due mainly to increased volumes in the Utica area. The year ended December 31, 2016 also included an impairment expense of \$89 million related to one of our equity method investments.

Cost of revenues increased \$74 million in 2017 compared to 2016. This variance was primarily due to an increase of \$20 million due to the inclusion of MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016, an increase of \$31 million from the acquisition of the Ozark pipeline, an \$18 million increase in expenses related to greater project spend, and a \$4 million increase in HSM costs for chartering additional barges.

Purchased product costs increased \$203 million in 2017 compared to 2016. This variance was primarily due to higher NGL and gas prices and purchase volumes in the Southwest area, partially offset by a \$12 million unrealized gain on an embedded derivative.

Purchases-related parties increased \$67 million in 2017 compared to 2016. This variance was primarily due to the inclusion of approximately \$23 million related party purchases of MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016, as well as general increases in employee costs due to headcount.

Depreciation and amortization expense increased \$92 million in 2017 compared to 2016. This variance was primarily due to accelerated depreciation expense of approximately \$38 million incurred on the decommissioning of the Houston 1 facility in the Marcellus area and other various assets, approximately \$15 million of additional depreciation due to the inclusion of MPLXT and the Ozark pipeline, as well as additions to in-service property, plant and equipment.

Impairment expense decreased \$130 million in 2017 compared to 2016. This variance was primarily due to a non-cash impairment to goodwill in two reporting units in the G&P segment during 2016. See Item 8. Financial Statements and Supplementary Data—Note 15 for more information.

General and administrative expenses increased \$14 million in 2017 compared to 2016. This variance was primarily due to an increase in acquisition costs, as well as employee costs related to the omnibus and employee services agreements with MPC.

Interest expense and other financial costs increased \$92 million in 2017 compared to 2016. This variance was primarily due to the senior notes issued in February 2017.

SEGMENT REPORTING

We classify our business in the following reportable segments: L&S and G&P. Segment Adjusted EBITDA represents Adjusted EBITDA attributable to the reportable segments. Amounts included in net income and excluded from Segment Adjusted EBITDA include: (i) depreciation and amortization; (ii) provision/(benefit) for income taxes; (iii) amortization of deferred financing costs; (iv) extinguishment of debt; (v) non-cash equity-based compensation; (vi) impairment expense; (vii) net interest and other financial costs; (viii) income/(loss) from equity method investments; (ix) distributions and adjustments related to equity method investments; (x) unrealized derivative gains/(losses); (xi) acquisition costs; (xii) noncontrolling interests; and (xiii) other adjustments as deemed necessary. These items are either: (i) believed to be non-recurring in nature; (ii) not believed to be allocable or controlled by the segment; or (iii) are not tied to the operational performance of the segment. For the L&S segment, Segment Adjusted EBITDA attributable to MPLX LP excludes the Adjusted EBITDA related to the HSM Predecessor prior to the March 31, 2016 acquisition and the HST, WHC and MPLXT Predecessor prior to the March 1, 2017 acquisition.

The tables below present information about Segment Adjusted EBITDA for the reported segments for the years ended December 31, 2018, 2017 and 2016.

L&S Segment

(In millions)	2018		2017		\$ Change			2016	\$ Change	
Service revenue	\$	2,289	\$	1,200	\$	1,089	\$	1,006	\$	194
Rental income		725		279		446		235		44
Product related revenue		14		_		14		_		_
Income from equity method investments		166		36		130		_		36
Other income		46		47		(1)		53		(6)
Total segment revenues and other income		3,240		1,562		1,678		1,294		268
Cost of revenues		401		370		31		289		81
Purchases—related parties		685		299		386		246		53
Depreciation and amortization		240		163		77		128		35
General and administrative expenses		142		106		36		99		7
Other taxes		36		22		14		17		5
Segment income from operations		1,736		602		1,134		515		87
Depreciation and amortization		240		163		77		128		35
Income from equity method investments		(166)		(36)		(130)		_		(36)
Distributions/adjustments related to equity										
method investments		235		76		159		_		76
Acquisition costs		3		11		(8)		(1)		12
Non-cash equity-based compensation		9		6		3		4		2
Adjusted EBITDA attributable to										
Predecessor				(47)		47		(251)		204
Segment Adjusted EBITDA(1)		2,057		775		1,282		395		380
Maintenance capital expenditures	\$	104	\$	79	\$	25	\$	58	\$	21

⁽¹⁾ See the Reconciliation of Adjusted EBITDA attributable to MPLX LP and DCF attributable to GP and LP unitholders from Net income table for the reconciliation to the most directly comparable GAAP measure.

2018 Compared to 2017

Service revenue increased \$1,089 million in 2018 compared to 2017. This variance was primarily due to an additional \$947 million of revenue from the acquisition of Refining Logistics and Fuels Distribution; a \$113 million increase in volume and transportation rates of crude and product shipped, partially attributable to the Ozark pipeline acquisition and expansion; a \$15 million increase from additional marine vessels; an additional \$10 million from increased terminal throughput; and a \$12 million increase in the recognition of revenue related to volume deficiencies. These increases were partially offset by ASC 606 classification changes and other miscellaneous items.

Rental income increased \$446 million in 2018 compared to 2017. This variance was primarily due to an additional \$411 million of revenue from the acquisition of Refining Logistics and Fuels Distribution, an additional \$16 million from the completion of a new butane cavern, a \$14 million increase from additional marine vessels, and an additional \$6 million from the acquisition of the Mt. Airy Terminal.

Product related revenue increased \$14 million in 2018 compared to 2017. This variance was primarily due to ASC 606 classification changes.

Income from equity method investments increased \$130 million in 2018 compared to 2017. This variance was primarily due to the Joint-Interest Acquisition and the acquisition of MarEn Bakken.

Cost of revenues increased \$31 million in 2018 compared to 2017. This variance was primarily due to an additional \$13 million from the acquisition of Refining Logistics and Fuels Distribution, \$7 million from the

acquisition of Ozark pipeline and related expansion, \$4 million from the acquisition of the Mt. Airy terminal and \$7 million for other miscellaneous items.

Purchases—related parties increased \$386 million in 2018 compared to 2017. This variance was primarily due to a \$372 million increase from the acquisition of Refining Logistics and Fuels Distribution as well as an increase in employee-related costs.

Depreciation and amortization increased \$77 million in 2018 compared to 2017. This variance was primarily due to the acquisitions of Refining Logistics, Fuels Distribution and the Mt. Airy Terminal.

General and administrative expenses increased \$36 million in 2018 compared to 2017. This variance was primarily due to an additional \$22 million from the acquisition of Refining Logistics and Fuels Distribution as well as increased other miscellaneous expenses.

Other taxes increased \$14 million in 2018 compared to 2017 primarily due to the acquisition of Refining Logistics and Fuels Distribution as well as the Ozark pipeline acquisition and expansion.

2017 Compared to **2016**

Service revenue increased \$194 million in 2017 compared to 2016 primarily due to an additional \$64 million from the acquisition of the Ozark pipeline; a \$53 million increase from higher crude and product transportation volumes; and the inclusion of \$79 million of revenue generated by MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016.

Rental income increased \$44 million in 2017 compared to 2016 primarily due to an increase of \$14 million from HSM equipment revenue due to increased capacity as a result of acquisition or chartering of additional barges, and the inclusion of \$24 million of revenue generated by MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016.

Income from equity method investments increased \$36 million in 2017 compared to 2016 due to the Joint-Interest Acquisition and the acquisition of MarEn Bakken.

Cost of revenues increased \$81 million in 2017 compared to 2016 primarily due to an increase of \$20 million due to the inclusion of MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016; an increase of \$31 million from the acquisition of the Ozark pipeline; an \$18 million increase in expenses related to greater project spend; and a \$4 million increase in HSM costs for chartering additional barges, as well increased other miscellaneous expenses.

Purchases—related parties increased \$53 million in 2017 compared to 2016 primarily due to an additional \$23 million related to the inclusion of MPLXT and its subsidiaries in the first quarter of 2017, as they were not formed as a business until April 1, 2016, as well as general increases in employee costs due to headcount.

Depreciation and amortization increased \$35 million in 2017 compared to 2016 primarily due to the inclusion of MPLXT and the Ozark pipeline, as well as additions to in-service property plant and equipment.

General and administrative expenses increased \$7 million in 2017 compared to 2016 primarily due to an increase in acquisition costs, as well as employee costs related to the omnibus and employee services agreements with MPC.

Other taxes increased \$5 million in 2017 compared to 2016 primarily due to the inclusion of MPLXT and the Ozark pipeline.

MPC Minimum Volume Commitments

During 2018 and 2017, MPC did not ship its minimum committed volumes on certain of our pipelines. As a result, MPC was obligated to make \$41 million and \$45 million of deficiency payments in 2018 and 2017, respectively. We record deficiency payments as "Deferred revenue-related parties" on the Consolidated Balance Sheets. During 2018 and 2017, we recognized revenue of \$50 million and \$38 million, respectively, related to volume deficiency credits. At December 31, 2018 and 2017, the cumulative balance of "Deferred revenue-related parties" on our Consolidated Balance Sheets related to volume deficiencies was \$44 million and \$53 million, respectively. The following table presents the future expiration dates of the associated deferred revenue credits for 2018:

(In millions)	
March 31, 2019	\$ 9
June 30, 2019	9
September 30, 2019	17
December 31, 2019	9
March 31, 2020	_
June 30, 2020	_
September 30, 2020	_
December 31, 2020	_
Total	\$ 44

We will recognize revenue for the deficiency payments in future periods at the earlier of when volumes are transported in excess of the minimum quarterly volume commitments, when it becomes impossible to physically transport volumes necessary to utilize the accumulated credits or upon expiration of the make-up period. Deficiency payments are included in the determination of DCF in the period in which a deficiency occurs.

G&P Segment

(In millions)	 2018	2017	\$ Cl	nange	 2016	\$ (Change
Service revenue	\$ 1,574	\$ 1,038	\$	536	\$ 888	\$	150
Rental income	342	277		65	298		(21)
Product related revenue	1,135	897		238	583		314
Income/(loss) from equity method							
investments	74	42		32	(74)		116
Other income	 60	51		9	 40		11
Total segment revenues and other							
income	3,185	2,305		880	1,735		570
Cost of revenues	687	222		465	223		(1)
Purchased product costs	845	651		194	448		203
Purchases—related parties	175	156		19	142		14
Depreciation and amortization	526	520		6	463		57
Impairment expense	_	_		_	130		(130)
General and administrative expenses	149	135		14	128		7
Other taxes	36	32		4	33		(1)
Income from operations	767	589		178	168		421
Depreciation and amortization	526	520		6	463		57
Impairment expense	_	_		_	130		(130)
(Income)/loss from equity method							
investments	(74)	(42)		(32)	74		(116)
Distributions/adjustments related to							
equity method investments	212	155		57	150		5
Unrealized derivative (gains)/losses ⁽¹⁾	(5)	6		(11)	36		(30)
Non-cash equity-based compensation	10	9		1	6		3
Adjusted EBITDA attributable to	(4.0)	(0)		(4.0)			
noncontrolling interests	(18)	(8)		(10)	(3)		(5)
Segment Adjusted EBITDA ⁽²⁾	 1,418	1,229		189	1,024		205
Maintenance capital expenditures	\$ 42	\$ 24	\$	18	\$ 26	\$	(2)

- (1) MPLX makes a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.
- (2) See the Reconciliation of Adjusted EBITDA attributable to MPLX LP and DCF attributable to GP and LP unitholders from Net income table for the reconciliation to the most directly comparable GAAP measure.

2018 Compared to 2017

Service revenue increased \$536 million in 2018 compared to 2017. This variance was primarily due to ASC 606 cost reimbursements of \$369 million as well as higher fees from higher volumes in the Marcellus and Southwest of \$167 million.

Rental income increased \$65 million in 2018 compared to 2017. This variance was primarily due to higher ASC 606 cost reimbursements of \$65 million.

Product related revenue increased \$238 million in 2018 compared to 2017. This variance was primarily due to higher prices in the Southwest, Northeast and Marcellus of \$113 million, volume impacts of \$9 million as well as ASC 606 classification and non-cash changes of \$106 million. In addition, there was a change in unrealized gains associated with derivatives of \$10 million, driven by favorable product hedges in 2018 compared to unfavorable product hedges in 2017.

Income from equity method investments increased \$32 million in 2018 compared to 2017. This variance was primarily due to growth in the Jefferson Dry Gas joint venture as a result of an increase in dry gas gathering

volumes as well as growth in the Sherwood Midstream joint venture due to additional plants coming online. This was partially offset by a decrease in our Utica EMG joint venture as a result of decreased volumes and the buy-out of an equity method investment partner.

Other income increased \$9 million in 2018 compared to 2017. This variance was primarily due to an increase in management fees from our joint ventures.

Cost of revenues increased \$465 million in 2018 compared to 2017. This variance was primarily due to ASC 606 gross ups of \$433 million as well as higher repairs and maintenance and operating costs in the Marcellus and Southwest of \$32 million.

Purchased product costs increased \$194 million in 2018 compared to 2017. This variance was primarily due to higher prices of \$68 million and volumes of \$36 million in the Southwest and Northeast as well as ASC 606 imbalances and non-cash consideration of \$105 million. These increases were partially offset with unrealized gains and losses associated with derivatives of \$15 million which was driven by NGL prices creating a smaller fractionation spread.

Purchases—related parties increased \$19 million in 2018 compared to 2017. This variance was primarily due to employee-related costs.

Depreciation and amortization increased \$6 million in 2018 compared to 2017. This variance primarily relates to accelerated depreciation taken in 2017 of approximately \$33 million offset by additions to in-service property, plant and equipment throughout 2017 and 2018 as well as a write-down of construction in progress projects of approximately \$10 million which are no longer expected to be completed.

General and administrative expenses increased \$14 million in 2018 compared to 2017. This variance was primarily due to increases in labor and benefits costs and general increases in office expenses.

Other taxes increased \$4 million in 2018 compared to 2017. This variance was primarily due to an increase in property taxes.

2017 Compared to 2016

Service revenue increased \$150 million in 2017 compared to 2016. This variance was primarily due to an increase in fees on higher volumes due to new gathering and processing facilities in the Marcellus and Southwest areas.

Rental income decreased \$21 million in 2017 compared to 2016. This variance was primarily due to the impact of recognizing rental income on a straight-line basis related to certain customer agreements.

Product related revenue increased \$314 million in 2017 compared to 2016. This variance was primarily due to increased pricing of approximately \$252 million as well as higher volume growth of approximately \$52 million in the Marcellus and Southwest areas and unrealized derivative gains of \$9 million due to a larger fractionation spread.

Income from equity method investments increased \$116 million in 2017 compared to 2016. This variance was primarily due to an increase of \$27 million from our equity method investments, mainly driven by increased volumes in the Utica area. The year ended December 31, 2016 also included an impairment expense of \$89 million related to one of our equity method investments.

Other income increased \$11 million in 2017 compared to 2016. This variance was primarily due to an increase in management fees from our joint ventures.

Purchased product costs increased \$203 million in 2017 compared to 2016. This variance was primarily due to higher NGL and gas prices and purchase volumes in the Southwest area, offset with unrealized gains and losses associated with derivatives of \$10 million.

Purchases—related parties increased \$14 million in 2018 compared to 2017. This variance was primarily due to employee-related costs.

Depreciation and amortization increased \$57 million in 2017 compared to 2016. This variance was primarily due to \$33 million of accelerated depreciation to decommission the Houston 1 facility and additions to in-service property, plant and equipment.

Impairment expense decreased \$130 million in 2017 compared to 2016. This variance was primarily due to an impairment to goodwill during 2016.

SEGMENT NET OPERATING MARGIN

For the year ended December 31, 2018, we calculated the following approximate percentages of our Net operating margin from the following types of contracts:

	Fee-Based	Other ⁽¹⁾
L&S	100%	%
G&P	87%	13%
Total	95%	5%

⁽¹⁾ Includes percent-of-proceeds, keep-whole and other types of arrangements tied to NGL, condensate and natural gas prices.

The following table presents a reconciliation of Net operating margin to income from operations, the most directly comparable GAAP financial measure.

(In millions)	2018		2017		2016
Reconciliation to Income from operations from Net operating margin:					
Service and rental revenues	\$	4,930	\$	2,794	\$ 2,427
Product related revenues		1,149		897	583
Purchased product costs		(845)		(651)	(448)
Derivative loss related to purchased product costs ⁽¹⁾		(9)		(19)	(27)
Net operating margin		5,225		3,021	2,535
Derivative loss related to purchased product costs ⁽¹⁾		9		19	27
Income/(loss) from equity method investments ⁽²⁾		240		78	(74)
Other income		7		6	7
Other income—related parties		99		92	86
Cost of revenues (excludes items below)		(948)		(528)	(454)
Rental cost of sales		(135)		(62)	(57)
Rental cost of sales—related parties		(5)		(2)	(1)
Purchases—related parties		(860)		(455)	(388)
Depreciation and amortization		(766)		(683)	(591)
Impairment expense		_		_	(130)
General and administrative expenses		(291)		(241)	(227)
Other taxes		(72)		(54)	(50)
Income from operations	\$	2,503	\$	1,191	\$ 683

- (1) MPLX makes a distinction between realized and unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.
- (2) Includes an impairment expense of \$89 million related to one of MPLX's equity method investments for the year ended December 31, 2016.

LIQUIDITY AND CAPITAL RESOURCES

Cash Flows

Our cash, cash equivalents and restricted cash balance was \$76 million at December 31, 2018, compared to \$9 million at December 31, 2017. The change in cash and cash equivalents was due to the factors discussed below. Net cash provided by (used in) operating activities, investing activities and financing activities for the past three years were as follows:

(In millions)	 2018		2017	2016	
Net cash provided by/(used in):					
Operating activities	\$ 2,826	\$	1,907	\$	1,491
Investing activities	(2,686))	(2,308)		(1,417)
Financing activities	 (73)		171		113
Total	\$ 67	\$	(230)	\$	187

Cash Flows Provided by Operating Activities. Net cash provided by operating activities increased \$919 million in 2018 compared to 2017, the majority of which is related to the increase in net income net of non-cash adjustments of approximately \$931 million period over period. 2018 includes Refining Logistics and Fuels Distribution as of February 1, 2018 as well as Joint-Interest Acquisition assets as of September 1, 2017.

Net cash provided by operating activities increased \$416 million in 2017 compared to 2016, the majority of which is related to an increase in net income net of non-cash adjustments of approximately \$240 million. This favorable change was driven primarily by higher prices and volumes, as well as the inclusion of MPLXT, since it was not formed as a business until April 1, 2016, and the acquisition of the Ozark pipeline. In addition, there was an increase in distributions received from unconsolidated affiliates of \$93 million due primarily to the acquisition of an equity interest in MarEn Bakken and the Joint-Interest Acquisition from MPC. Working capital reflected favorable changes of approximately \$83 million compared to 2016.

Cash Flows Used in Investing Activities. Net cash used in investing activities increased \$378 million in 2018 compared to 2017 primarily due to the Mt. Airy Terminal acquisition as well as various capital projects that have taken place throughout 2018 in-line with MPLX's capital growth plan. The impact of this activity in 2018 was partially offset by the Ozark pipeline acquisition and higher investments in unconsolidated affiliates which occurred in 2017.

Net cash used in investing activities increased \$891 million in 2017 compared to 2016, primarily due to the acquisition of an equity interest in MarEn Bakken for \$513 million, investments in other unconsolidated entities of approximately \$248 million, \$219 million for the acquisition of the Ozark pipeline, \$33 million for the buy-out of an equity method investment partner, and an increase in cash used for additions to property, plant and equipment related to various capital projects. Partially offsetting these items was a net increase of \$97 million in investment loans with MPC and a return of capital of \$26 million from our acquisition of equity interests in Sherwood Midstream and Sherwood Midstream Holdings LLC.

Cash Flows Used in and Provided by Financing Activities. The change in financing activities was a \$73 million use of cash in 2018 compared to a \$171 million source of cash in 2017. The uses of cash in 2018 primarily

consisted of distributions to MPC of \$4.1 billion for the acquisition of Refining Logistics and Fuels Distribution, the \$4.1 billion repayment of the 364-day term loan facility, the \$4,347 million repayment of borrowings under the MPC Loan Agreement, the \$750 million redemption of the 5.5 percent senior notes due February 2023 and \$14 million of related debt extinguishment charges, the \$1,915 million repayment of the MPLX Credit Agreement, debt issuance costs and discounts of \$76 million and \$74 million respectively, distributions of \$71 million and \$17 million to preferred unitholders and noncontrolling interests respectively, and distributions of \$1,819 million to unitholders and our general partner due mainly to the increase in units outstanding as well as an increase in the distribution per limited partner unit. This was partially offset by sources of cash primarily related to \$1,410 million of proceeds from the MPLX Credit Agreement, \$5.5 billion of net proceeds from the senior notes issued on February 8, 2018, \$2.25 billion of net proceeds from the senior notes issued on November 15, 2018, \$4.1 billion of net proceeds under the 364-day term loan facility that was drawn on February 1, 2018, and \$3,962 million of net proceeds from draws on the MPC Loan Agreement.

Net cash provided by financing activities in 2017 was \$171 million compared to \$113 million in 2016. The sources of cash in 2017 primarily consisted of \$2.2 billion of net proceeds from the senior notes issued in February 2017, \$670 million of proceeds under the bank revolving credit facility, \$129 million in contributions from noncontrolling interests, and \$483 million of net proceeds from sales of common units under the ATM Program. These items were partially offset by distributions to MPC of \$1.9 billion for the acquisition of HST, WHC and MPLXT and the Joint-Interest Acquisition, \$250 million repayment of the term loan facility, \$165 million repayment of the bank revolving credit facility, distributions of \$65 million to preferred unitholders, and increased distributions of \$1.1 billion to unitholders and our general partner due mainly to the increase in units outstanding, as well as a 12.1 percent increase in the distribution per limited partner unit.

The sources of cash in 2016 primarily consisted of \$984 million in net proceeds from the issuance of preferred units and \$792 million of net cash proceeds from the issuance of common units and general partner units, as well as contributions of \$225 million from MPC as part of the Class A Reorganization. The uses of cash in 2016 primarily consisted of net repayments of long-term debt and distributions to unitholders.

Long-term debt borrowings and repayments were a net \$6.3 billion source of cash in 2018 compared to a \$2.5 billion source of cash in 2017 and a \$878 million use of cash in 2016. During 2018, we used proceeds from senior notes issued during the year to redeem \$750 million of 5.5 percent senior notes due February 2023, for the acquisition of Refining Logistics and Fuels Distribution, to repay amounts outstanding under the MPLX Credit Agreement and MPC Loan Agreement, as well as for general business purposes. During 2017, we used proceeds from the issuance of the February 2017 senior notes and MPLX Credit Agreement for general business purposes, including the acquisitions of HST, WHC, MPLXT and the Joint-Interest Acquisition from MPC, the acquisition of our equity interest in MarEn Bakken, the acquisition of the Ozark pipeline and capital expenditures. During 2016, we used proceeds from the issuance of preferred units to repay amounts outstanding under the MPLX Credit Agreement. See Item 8. Financial Statements and Supplementary Data—Note 18.

Debt and Liquidity Overview

On November 20, 2014, we entered into a credit agreement with a syndicate of lenders which provided for a five-year, \$1 billion bank revolving credit facility and a \$250 million term loan facility. In connection with the MarkWest Merger, the aggregate capacity of the credit facility was extended to \$2 billion and the maturity date was extended to December 4, 2020. On July 21, 2017, we replaced the previously existing \$2 billion revolving credit facility and \$250 million term loan with a \$2.25 billion five-year bank revolving credit facility that expires in July 2022 ("MPLX Credit Agreement"). Borrowings under the MPLX Credit Agreement bear interest at either the Adjusted LIBOR or the Alternate Base Rate (as defined in the MPLX Credit Agreement), at our election, plus a specified margin. We are charged various fees and expenses in connection with the agreement, including administrative agent fees, commitment fees on the unused portion of the bank revolving credit facility and fees with respect to issued and outstanding letters of credit. The financial covenants and the interest rate terms contained in the new credit agreement are substantially the same as those contained in the previous bank

revolving credit facility. Additionally, on July 19, 2017, we prepaid the entire outstanding principal amount of the previously outstanding \$250 million term loan with cash on hand.

The MPLX Credit Agreement includes letter of credit issuing capacity of up to \$222 million and swingline capacity of up to \$100 million. The borrowing capacity under the MPLX Credit Agreement may be increased by up to an additional \$500 million, subject to certain conditions, including the consent of lenders whose commitments would increase. In addition, the maturity date may be extended for up to two additional one-year periods subject to, among other conditions, the approval of lenders holding the majority of the commitments then outstanding, provided that the commitments of any non-consenting lenders will terminate on the then-effective maturity date. During 2018, we borrowed \$1,410 million under the MPLX Credit Agreement, at an average interest rate of 3.464 percent, and repaid \$1,915 million of borrowings under the MPLX Credit Agreement. At December 31, 2018, we had no outstanding borrowings and \$3 million in letters of credit outstanding under this facility, resulting in total availability of approximately \$2.2 billion, or 99.9 percent, of the borrowing capacity.

The MPLX Credit Agreement contains certain representations and warranties, affirmative and negative covenants and events of default that we consider usual and customary for an agreement of that type and that could, among other things, limit our ability to pay distributions to our unitholders. The financial covenant requires us to maintain a ratio of Consolidated Total Debt as of the end of each fiscal quarter to Consolidated EBITDA (both as defined in the MPLX Credit Agreement) for the prior four fiscal quarters of no greater than 5.0 to 1.0 (or 5.5 to 1.0 for up to two fiscal quarters following certain acquisitions). Consolidated EBITDA is subject to adjustments for certain acquisitions completed and capital projects undertaken during the relevant period. Other covenants restrict us and/or certain of our subsidiaries from incurring debt, creating liens on our assets and entering into transactions with affiliates. As of December 31, 2018, we were in compliance with this financial covenant with a ratio of Consolidated Total Debt to Consolidated EBITDA of 3.8 to 1.0, as well as all other covenants contained in the MPLX Credit Agreement. For further discussion, see Item 8. Financial Statements and Supplementary Data—Note 18.

On January 2, 2018, MPLX entered into a term loan agreement with a syndicate of lenders providing for a \$4.1 billion, 364-day term loan facility. MPLX drew the entire amount of the term loan facility in a single borrowing on February 1, 2018. The proceeds from the term loan facility were used to fund the cash portion of the dropdown consideration for Refining Logistics and Fuels Distribution.

On February 8, 2018, MPLX issued \$5.5 billion aggregate principal amount of senior notes in a public offering, consisting of \$500 million aggregate principal amount of 3.375 percent unsecured senior notes due March 2023, \$1.25 billion aggregate principal amount of 4.0 percent unsecured senior notes due March 2028, \$1.75 billion aggregate principal amount of 4.5 percent unsecured senior notes due April 2038, \$1.5 billion aggregate principal amount of 4.7 percent unsecured senior notes due April 2048, and \$500 million aggregate principal amount of 4.9 percent unsecured senior notes due April 2058. The notes were offered at a price to the public of 99.931 percent, 99.551 percent, 98.811 percent, 99.348 percent, and 99.289 percent of par, respectively. On February 8, 2018, \$4.1 billion of the net proceeds were used to repay the 364-day term loan facility. The remaining proceeds were used to repay outstanding borrowings under the MPLX Credit Agreement and the MPC Loan Agreement, as well as for general business purposes.

On November 15, 2018, MPLX issued \$2.25 billion aggregate principal amount of senior notes in a public offering, consisting of \$750 million aggregate principal amount of 4.8 percent unsecured senior notes due February 2029 and \$1.5 billion aggregate principal amount of 5.5 percent unsecured senior notes due February 2049 (collectively, the "November 2018 New Senior Notes"). The November 2018 New Senior Notes were offered at a price to the public of 99.432 percent and 98.031 percent of par, respectively. The proceeds were used to repay outstanding borrowings under the MPLX Credit Agreement and the MPC Loan Agreement, to redeem \$750 million of 5.5 percent senior notes due February 2023, as well as for general business purposes. Interest on each series of notes in the November 2018 New Senior Notes is payable semi-annually in arrears, commencing on February 15, 2019.

On December 10, 2018, MPLX redeemed all of the \$750 million 5.5 percent senior notes due February 15, 2023, \$40 million of which was issued by the MarkWest subsidiary. These notes were redeemed at 101.833 percent of the principal amount, which resulted in a payment of \$14 million related to the note premium and the immediate recognition of \$46 million of unamortized debt issuance costs.

As of December 31, 2018, we had \$13.9 billion in aggregate principal amount of senior notes outstanding. The increase compared to year-end 2017 resulted from the February 2018 and November 2018 public offerings of senior notes, offset by the redemption of the 5.5 percent senior notes due February 2023. As of December 31, 2018, minimum principal payments due during the next five years include \$500 million to repay our 3.375 percent senior notes due March 2023 and \$1 billion to repay our 4.5 percent senior notes due July 2023. For further discussion, see Item 8. Financial Statements and Supplementary Data—Note 18.

Our intention is to maintain an investment grade credit profile. As of February 1, 2019, the credit ratings on our senior unsecured debt were at or above investment grade level as follows:

Rating Agency	Rating
Moody's	Baa3 (stable outlook)
Fitch	BBB- (positive outlook)
Standard & Poor's	BBB (stable outlook)

The ratings shown above reflect the respective views of the rating agencies. Although it is our intention to maintain a credit profile that supports an investment grade rating, there is no assurance that these ratings will continue for any given period of time. The ratings may be revised or withdrawn entirely by the rating agencies if, in their respective judgments, circumstances so warrant.

The MPLX Credit Agreement does not contain credit rating triggers that would result in the acceleration of interest, principal or other payments in the event that our credit ratings are downgraded. However, any downgrades in the credit ratings of our senior unsecured debt ratings to below investment grade ratings would, among other things, increase the applicable interest rates and other fees payable under the MPLX Credit Agreement and may limit our flexibility to obtain future financing.

Our liquidity totaled \$3.3 billion at December 31, 2018, consisting of:

December 31, 2016									
Total	Capacity			Available Capacity					
\$	2,250	\$	(3)	\$	2,247				
	1,000				1,000				
\$	3,250	\$	(3)		3,247				
					68				
			=	\$	3,315				
	\$	Total Capacity \$ 2,250 1,000	Total Capacity Outsta \$ 2,250 \$ 1,000	Total Capacity Substanding Borrowings \$ 2,250 \$ (3)	Total Capacity Solution and the provings and the provings and the provings are calculated as a constant of the provings and the provings are calculated as a constant of the constant of the provings ar				

December 31 2018

We expect our ongoing sources of liquidity to include cash generated from operations, borrowings under our revolving credit facilities and access to capital markets. We believe that cash generated from these sources will be sufficient to meet our short term and long-term funding requirements, including working capital requirements, capital expenditure requirements, acquisitions, contractual obligations, and quarterly cash distributions.

MPC manages our cash and cash equivalents on our behalf directly with third-party institutions as part of the treasury services that it provides to us under our omnibus agreement. From time to time, we may also consider utilizing other sources of liquidity, including the formation of joint ventures or sales of non-strategic assets.

⁽¹⁾ Outstanding borrowings include \$3 million in letters of credit outstanding under this facility.

Equity and Preferred Units Overview

The following table summarizes the changes in the number of units outstanding through December 31, 2018:

Common	Class B	General Partner	Total
296,687,176	7,981,756	6,800,475	311,469,407
120,989	_	2,470	123,459
26,347,887	_	537,710	26,885,597
22,534,002	_	459,878	22,993,880
4,350,057	(3,990,878)	7,330	366,509
7,153,177		(436,758)	6,716,419
357,193,288	3,990,878	7,371,105	368,555,271
268,167	_	5,472	273,639
13,846,998	_	282,591	14,129,589
12,960,376	_	264,497	13,224,873
18,511,134	_	377,778	18,888,912
4,350,057	(3,990,878)	7,330	366,509
407,130,020	_	8,308,773	415,438,793
348,387	_	140	348,527
111,611,111	_	2,277,778	113,888,889
275,000,000		(10,586,691)	264,413,309
794,089,518			794,089,518
	296,687,176 120,989 26,347,887 22,534,002 4,350,057 7,153,177 357,193,288 268,167 13,846,998 12,960,376 18,511,134 4,350,057 407,130,020 348,387 111,611,111 275,000,000	296,687,176 7,981,756 120,989 — 26,347,887 — 22,534,002 — 4,350,057 (3,990,878) 7,153,177 — 357,193,288 3,990,878 268,167 — 13,846,998 — 12,960,376 — 18,511,134 — 4,350,057 (3,990,878) 407,130,020 — 348,387 — 111,611,111 — 275,000,000 —	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

For more details on equity activity, see Item 8. Financial Statements and Supplementary Data—Notes 8 and 9.

Preferred Units

On May 13, 2016, MPLX completed the private placement of approximately 30.8 million preferred units for a cash purchase price of \$32.50 per unit. The aggregate net proceeds of approximately \$984 million from the sale of the preferred units were used for capital expenditures, repayment of debt and general business purposes.

The preferred units rank senior to all common units with respect to distributions and rights upon liquidation. The holders of the preferred units received cumulative quarterly distributions equal to \$0.528125 per unit for each quarter prior to the second quarter of 2018. Beginning with the second quarter of 2018, the holders of the preferred units are entitled to receive a quarterly distribution equal to the greater of \$0.528125 per unit or the amount of distributions they would have received on an as converted basis. Distributions paid to preferred unitholders during the years ended December 31, 2018, 2017 and 2016 were \$71 million, \$65 million and \$25 million, respectively.

Class B Units

On July 1, 2016, the previously outstanding 3,990,878 Class B units each automatically converted into 1.09 MPLX LP common units and the right to receive \$6.20 per unit in cash. MPC funded the \$6.20 per unit cash payment, which reduced our liability payable to Class B unitholders by approximately \$25 million on July 1, 2016. In connection with the Class B conversion on July 1, 2016, MPLX GP contributed less than \$1 million in exchange for 7,330 general partner units to maintain its two percent general partner interest. On July 1, 2017, all of the remaining 3,990,878 Class B units each automatically converted into 1.09 MPLX LP common units and the right to receive \$6.20 per unit in cash. MPC funded this cash payment, which reduced our liability payable to Class B unitholders by approximately \$25 million on July 1, 2017. In connection with the Class B units conversion on July 1, 2017, MPLX GP contributed less than \$1 million in exchange for 7,330 general partner units to maintain its two percent general partner interest. As common units outstanding as of the August 7, 2017 record date, the converted Class B units participated in the second quarter 2017 distribution.

Reorganization Transactions

On September 1, 2016, MPLX and various affiliates initiated a series of reorganization transactions in order to simplify MPLX's ownership structure and its financial and tax reporting requirements. In connection with these transactions, all issued and outstanding MPLX LP Class A units were either distributed to or purchased by MPC in exchange for \$84 million in cash, 21,401,137 MPLX LP common units and 436,758 MPLX LP general partner units. MPC also contributed \$141 million to facilitate the repayment of intercompany debt between MarkWest Hydrocarbon, L.L.C. ("MarkWest Hydrocarbon"), and MarkWest. As a result of these transactions, the MPLX LP Class A units were eliminated, are no longer outstanding and no longer participate in distributions of cash from MPLX. See additional discussion in Item 8. Financial Statements and Supplementary Data—Notes 8 and 12.

GP/IDR Exchange

On February 1, 2018, our general partner's IDRs were eliminated and its two percent economic general partner interest in MPLX LP was converted into a non-economic general partner interest, all in exchange for 275 million newly-issued MPLX LP common units. As a result of this transaction, the general partner units and IDRs were eliminated, are no longer outstanding, and no longer participate in distributions of cash from MPLX.

ATM Program

On March 13, 2018, MPLX entered into a Third Amended and Restated Distribution Agreement providing for the at-the-market issuances of common units having an aggregate offering price of up to approximately \$1.7 billion, in amounts, at prices and on terms determined by market conditions and other factors at the time of the offerings. There were no issuances made under the ATM Program during the year ended December 31, 2018. In 2017 and 2016, the sale of common units under the ATM Program generated net proceeds of approximately \$473 million and \$776 million, respectively. MPLX used the net proceeds from sales under the ATM Program for general business purposes, including repayment or refinancing of debt and funding for acquisitions, working capital requirements and capital expenditures.

Distributions

We intend to pay a minimum quarterly distribution of \$0.2625 per unit, which equates to \$208 million per quarter, or \$834 million per year, based on the number of common and general partner units. On January 25, 2019, we announced that the board of directors of our general partner had declared a distribution of \$0.6475 per common unit that was paid on February 14, 2019 to common unitholders of record on February 5, 2019. This represents a 7 percent increase over the fourth quarter 2017 distribution. We have provided distribution growth guidance of \$.01 per unit each quarter for 2019. This increase in the distribution is consistent with our intent to maintain an attractive distribution growth profile over the long term. Although our Partnership Agreement requires that we distribute all of our available cash each quarter, we do not otherwise have a legal obligation to distribute any particular amount per common unit.

MPC agreed to waive the fourth quarter 2017 distributions on the common units issued in connection with the acquisition of Refining Logistics and Fuels Distribution which took place on February 1, 2018. MPC also agreed to waive the portion of the fourth quarter 2017 distributions on common units received on February 1, 2018 in the GP IDR Exchange in excess of what would have been distributable to MPC for its economic general partner interest, including IDRs, absent the exchange. Together, the value of these waived distributions was \$135 million. Additionally, in connection with our acquisition of a partial, indirect equity interest in the Bakken Pipeline system on February 15, 2017, MPC agreed to waive its right to receive incentive distributions of \$1.6 million per quarter for twelve consecutive quarters beginning with the distributions declared in the first quarter of 2017 and paid to MPC in the second quarter of 2017, which was prorated from the acquisition date. This waiver is no longer applicable as a result of the GP IDR Exchange on February 1, 2018.

The allocation of total quarterly cash distributions to general and limited partners is as follows for the years ended December 31, 2018, 2017 and 2016. Our distributions are declared subsequent to quarter end; therefore, the following table represents total cash distributions applicable to the period in which the distributions were earned. See additional discussion in Item 8. Financial Statements and Supplementary Data—Note 7.

(In millions)	2018		2018 2017		2018 2017		2016	
Distribution declared:								
Limited partner units—public	\$	732	\$	656	\$	533		
Limited partner units—MPC		1,253		338		159		
General partner units—MPC		_		18		18		
IDRs—MPC				211		187		
Total GP & LP distribution declared		1,985		1,223		897		
Redeemable preferred units		75		65		41		
Total distribution declared	\$	2,060	\$	1,288	\$	938		
Cash distributions declared per limited partner common unit:								
Quarter ended March 31,	\$	0.6175	\$	0.5400	\$	0.5050		
Quarter ended June 30,		0.6275		0.5625		0.5100		
Quarter ended September 30,		0.6375		0.5875		0.5150		
Quarter ended December 31,		0.6475		0.6075		0.5200		
Year ended December 31,	\$	2.5300	\$	2.2975	\$	2.0500		

Capital Expenditures

Our operations are capital intensive, requiring investments to expand, upgrade, enhance or maintain existing operations and to meet environmental and operational regulations. Our capital requirements consist of maintenance capital expenditures and growth capital expenditures. Examples of maintenance capital expenditures are those made to replace partially or fully depreciated assets, to maintain the existing operating capacity of our assets and to extend their useful lives, or other capital expenditures that are incurred in maintaining existing system volumes and related cash flows. In contrast, growth capital expenditures are those incurred for acquisitions or capital improvements that we expect will increase our operating capacity to increase volumes gathered, processed, transported or fractionated, decrease operating expenses within our facilities or increase operating income over the long term. Examples of growth capital expenditures include the acquisition of equipment or the construction costs and the development or acquisition of additional pipeline, processing or storage capacity. In general, growth capital includes costs that are expected to generate additional or new cash flow for MPLX.

Our capital expenditures for the past three years are shown in the table below:

(In millions)	2018	2018 2017	
Capital expenditures ⁽¹⁾ : Maintenance Growth	\$ 146	\$ 103	\$ 84
	1,884	1,381	1,213
Total capital expenditures Less: Increase (decrease) in capital accruals Asset retirement expenditures	2,030	1,484	1,297
	104	71	(22)
	7	2	6
Additions to property, plant and equipment	1,919	1,411	1,313
Capital expenditures of unconsolidated subsidiaries ⁽²⁾	421	384	131
Total gross capital expenditures Less: Joint venture partner contributions	2,340	1,795	1,444
	196	169	64
Total capital expenditures, net Acquisition, net of cash acquired	2,144 451	1,626 249	1,380
Total Capital Expenditures, net and acquisitions Less: Maintenance capital expenditures Acquisition, net of cash acquired	2,595	1,875	1,380
	146	108	88
	451	249	—
Total growth capital expenditures	\$ 1,998	\$ 1,518	\$ 1,292

⁽¹⁾ Includes capital expenditures of the Predecessor for all periods presented.

Our organic growth capital plan for 2019 is \$2.2 billion. The L&S organic growth capital plan includes the continued expansion of MPLX's marine fleet. We also have other projects including long-haul crude oil, natural gas and NGL pipelines as well as projects to increase our export capability which will further enhance our L&S segment full value chain capture. The G&P segment organic growth capital plan includes the addition of approximately 765 MMcf/d of processing capacity at five gas processing plants, two in the Marcellus and three in the Southwest, which expands MPLX's processing capacity in the Permian Basin and the STACK shale play of Oklahoma. The G&P segment capital plan also includes the addition of approximately 100 mbpd of fractionation capacity in the Marcellus and Utica basins. We continuously evaluate our capital plan and make changes as conditions warrant.

⁽²⁾ Includes amounts related to unconsolidated, Partnership-operated subsidiaries. Contributions by MPLX to our equity method investments in 2018, 2017 and 2016 totaled \$341 million, \$761 million and \$87 million respectively.

Contractual Cash Obligations

The table below provides aggregated information on our consolidated obligations to make future payments under existing contracts as of December 31, 2018:

(In millions)	 Total	2019	2020 & 2021		2022 & 2023		Th	nereafter
Bank revolving credit facility ⁽¹⁾	\$ 17	\$ 5	\$	9	\$	3	\$	_
Long-term debt ⁽¹⁾	24,841	613		1,285		2,776		20,167
Capital lease obligations	7	1		6		_		_
Operating leases ⁽²⁾	1,051	73		138		121		719
Purchase obligations:								
Contracts to acquire property,								
plant & equipment	746	743		3		_		
Other contracts	 3,077	294		142		131		2,510
Total purchase obligations ⁽³⁾	3,823	1,037		145		131		2,510
Natural gas purchase obligations ⁽⁴⁾	27	6		14		7		_
SMR liability ⁽⁵⁾	195	17		34		34		110
Transportation and terminalling ⁽⁶⁾	424	52		100		93		179
Other long-term liabilities reflected on								
the Consolidated Balance Sheets:								
$AROs^{(7)}$	30							30
Total contractual cash								
obligations	\$ 30,415	\$ 1,804	\$	1,731	\$	3,165	\$	23,715

- (1) Amounts represent outstanding borrowings at December 31, 2018, plus any commitment and administrative fees and interest.
- (2) Amounts relate primarily to leases associated with Refining Logistics as well as to our office, railcar, and vehicle leases.
- (3) Represents purchase orders and contracts related to the purchase or build out of property, plant and equipment. Purchase obligations exclude current and long-term unrealized losses on derivative instruments included on the accompanying Consolidated Balance Sheets, which represent the current fair value of various derivative contracts and do not represent future cash purchase obligations. These contracts are generally settled financially at the difference between the future market price and the contractual price and may result in cash payments or cash receipts in the future, but generally do not require delivery of physical quantities of the underlying commodity.
- (4) Natural gas purchase obligations consist primarily of a purchase agreement with a producer in our Southern Appalachia Operations. The contract provides for the purchase of keep-whole volumes at a specific price and is a component of a broader regional arrangement. The contract price is designed to share a portion of the frac spread with the producer and as a result, the amounts reflected for the obligation exceed the cost of purchasing the keep-whole volumes at a market price. The contract is considered an embedded derivative (see Item 8. Financial Statements and Supplementary Data—Note 17 for the fair value of the frac spread sharing component). We use the estimated future frac spreads as of December 31, 2018 for calculating this obligation. The counterparty to the contract has the option to renew the gas purchase agreement and the related keep-whole processing agreement for two successive five-year terms after 2022, which is not included in the natural gas purchase obligations line item.
- (5) Represents amounts due under a product supply agreement (see Item 8. Financial Statements and Supplementary Data—Note 25 for further discussion of the product supply agreement).
- (6) Represents transportation and terminalling agreements that obligate us to minimum volume, throughput or payment commitments over the terms of the agreements, which will range from three to ten years. We expect to pass any minimum payment commitments through to producer customers. Minimum fees due under transportation agreements do not include potential fee increases as required by FERC.

(7) Excludes estimated accretion expense of \$31 million. The total amount to be paid is approximately \$61 million.

In addition to the obligations included in the table above, we have an omnibus agreement and employee services agreements with MPC. The omnibus agreement with MPC addresses our payment of a fixed annual fee to MPC for the provision of executive management services by certain executive officers of our general partner and our reimbursement to MPC for the provision of certain general and administrative services to us. The omnibus agreement remains in full force and effect as long as MPC controls our general partner. Under the omnibus agreement, we paid to MPC in equal monthly installments an annual amount of approximately \$152 million in 2018 for the provision of services by MPC, such as information technology, engineering, legal, accounting, treasury, human resources and other administrative services. The annual amount includes a fixed annual fee of approximately \$14 million for the provision of certain executive management services by certain officers of our general partner.

We also pay MPC additional amounts based on the costs actually incurred by MPC in providing other services, except for the portion of the amount attributable to engineering services, which is based on the amounts actually incurred by MPC and its affiliates plus six percent of such costs. In addition, we are obligated to reimburse MPC for most out-of-pocket costs and expenses incurred by MPC on our behalf.

MPLX has various employee services agreements with MPC under which MPLX reimburses MPC for employee benefit expenses, along with the provision of operational and management services in support of both our L&S and G&P segments' operations, including those in support of HST, WHC, MPLXT and HSM. We incurred \$640 million of expenses under the employee services agreements for 2018.

Off-Balance Sheet Arrangements

As of December 31, 2018, we have not entered into any transactions, agreements or other arrangements that would result in off-balance sheet liabilities.

Effects of Inflation

Inflation did not have a material impact on our results of operations for the years ended December 31, 2018, 2017 or 2016. Although the impact of inflation has been insignificant in recent years, it is still a factor in the United States economy and may increase the cost to acquire, build or replace property, plant and equipment. It may also increase the costs of labor and supplies. To the extent permitted by competition, regulation and our existing agreements, we have and expect to continue to pass along all or a portion of increased costs to our customers in the form of higher fees.

TRANSACTIONS WITH RELATED PARTIES

As of December 31, 2018, MPC owned our general partner and approximately 63.6 percent limited partner interest in us.

Excluding revenues attributable to volumes shipped by MPC under joint tariffs with third parties that are treated as third-party revenues for accounting purposes, MPC accounted for 46 percent, 36 percent and 41 percent of our total revenues and other income for 2018, 2017 and 2016, respectively. We provide crude oil and product pipeline transportation services based on regulated tariff rates and storage services and inland marine transportation based on contracted rates.

Of our total costs and expenses, MPC accounted for 27 percent, 22 percent and 23 percent for 2018, 2017 and 2016, respectively. MPC performed certain services for us related to information technology, engineering, legal, accounting, treasury, human resources and other administrative services.

We believe that transactions with related parties were conducted under terms comparable to those with unrelated parties. For further discussion of agreements and activity with MPC and related parties see Item 1. Business—Our L&S Contracts with MPC and Third Parties and Item 8. Financial Statements and Supplementary Data—Note 6.

ENVIRONMENTAL MATTERS AND COMPLIANCE COSTS

We are subject to extensive federal, state and local environmental laws and regulations. These laws, which change frequently, regulate the discharge of materials into the environment or otherwise relate to protection of the environment. Compliance with these laws and regulations may require us to remediate environmental damage from any discharge of hazardous, petroleum or chemical substances from our facilities or require us to install additional pollution control equipment on our equipment and facilities. Our failure to comply with these or any other environmental or safety-related regulations could result in the assessment of administrative, civil or criminal penalties, the imposition of investigatory and remedial liabilities, and the issuance of injunctions that may subject us to additional operational constraints.

Future expenditures may be required to comply with the Clean Air Act and other federal, state and local requirements for our various facilities. The impact of these legislative and regulatory developments, if enacted or adopted, could result in increased compliance costs and additional operating restrictions on our business, each of which could have an adverse impact on our financial position, results of operations and liquidity. MPC will indemnify us for certain of these costs under the omnibus agreement.

If these expenditures, as with all costs, are not ultimately reflected in the fees and tariff rates we receive for our services, our operating results will be adversely affected. We believe that substantially all of our competitors must comply with similar environmental laws and regulations. However, the specific impact on each competitor may vary depending on a number of factors, including, but not limited to, the age and location of its operating facilities. Our environmental expenditures for each of the past three years were:

(In millions)	2018		2	2017	2016		
Capital	\$	27	\$	5	\$	12	
Percent of total capital expenditures		1%		%		1%	
Compliance:							
Operating and maintenance	\$	31	\$	26	\$	95	
Remediation ⁽¹⁾		8		4		10	
Total	\$	39	\$	30	\$	105	

⁽¹⁾ These amounts include spending charged against remediation reserves, where permissible, but exclude non-cash accruals for environmental remediation.

We accrue for environmental remediation activities when the responsibility to remediate is probable and the amount of associated costs can be reasonably estimated. As environmental remediation matters proceed toward ultimate resolution or as additional remediation obligations arise, charges in excess of those previously accrued may be required.

New or expanded environmental requirements, which could increase our environmental costs, may arise in the future. We believe we comply with all legal requirements regarding the environment, but since not all of them are fixed or presently determinable (even under existing legislation) and may be affected by future legislation or regulations, it is not possible to predict all of the ultimate costs of compliance, including remediation costs that may be incurred and penalties that may be imposed.

Our environmental capital expenditures are expected to approximate \$11 million in 2019. Actual expenditures may vary as the number and scope of environmental projects are revised as a result of improved technology or

changes in regulatory requirements and could increase if additional projects are identified or additional requirements are imposed. The amount of expenditures in 2019 is also dependent upon the resolution of the matters described in Item 3—Legal Proceedings, which may require us to complete additional projects and increase our actual environmental capital and operating expenditures.

CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenues and expenses during the respective reporting periods. Accounting estimates are considered to be critical if (i) the nature of the estimates and assumptions is material due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change; and (ii) the impact of the estimates and assumptions on financial condition or operating performance is material. Actual results could differ from the estimates and assumptions used.

The policies and estimates discussed below are considered by management to be critical to an understanding of our financial statements because their application requires the most significant judgments from management in estimating matters for financial reporting that are inherently uncertain. See Item 8 Financial Statements and Supplementary Data—Note 2 for additional information on these policies and estimates, as well as a discussion of additional accounting policies and estimates.

Fair Value Estimates

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. There are three approaches for measuring the fair value of assets and liabilities: the market approach, the income approach and the cost approach, each of which includes multiple valuation techniques. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to measure fair value by converting future amounts, such as cash flows or earnings, into a single present value amount using current market expectations about those future amounts. The cost approach is based on the amount that would currently be required to replace the service capacity of an asset. This is often referred to as current replacement cost. The cost approach assumes that the fair value would not exceed what it would cost a market participant to acquire or construct a substitute asset of comparable utility, adjusted for obsolescence.

The fair value accounting standards do not prescribe which valuation technique should be used when measuring fair value and do not prioritize among the techniques. These standards establish a fair value hierarchy that prioritizes the inputs used in applying the various valuation techniques. Inputs broadly refer to the assumptions that market participants use to make pricing decisions, including assumptions about risk. Level 1 inputs are given the highest priority in the fair value hierarchy while Level 3 inputs are given the lowest priority. The three levels of the fair value hierarchy are as follows:

- Level 1 Observable inputs that reflect unadjusted quoted prices for identical assets or liabilities in active
 markets as of the measurement date. Active markets are those in which transactions for the asset or liability
 occur in sufficient frequency and volume to provide pricing information on an ongoing basis.
- Level 2 Observable market-based inputs or unobservable inputs that are corroborated by market data.
 These are inputs other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the measurement date.
- Level 3 Unobservable inputs that are not corroborated by market data and may be used with internally developed methodologies that result in management's best estimate of fair value.

Valuation techniques that maximize the use of observable inputs are favored. Assets and liabilities are classified in their entirety based on the lowest priority level of input that is significant to the fair value measurement. The assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the placement of assets and liabilities within the levels of the fair value hierarchy. We use an income or market approach for recurring fair value measurements and endeavor to use the best information available. See Item 8. Financial Statements and Supplementary Data—Note 16 for disclosures regarding our fair value measurements.

Significant uses of fair value measurements include:

- assessment of impairment of long-lived assets;
- assessment of impairment of intangible assets:
- · assessment of impairment of goodwill;
- assessment of impairment of equity method investments;
- · recorded values for assets acquired and liabilities assumed in connection with acquisitions; and
- recorded values of derivative instruments.

Impairment Assessments of Long-Lived Assets, Intangible Assets, Goodwill and Equity Method Investments

Fair value calculated for the purpose of testing our long-lived assets, intangible assets, goodwill and equity method investments for impairment is estimated using the expected present value of future cash flows method and comparative market prices when appropriate. Significant judgment is involved in performing these fair value estimates since the results are based on forecasted assumptions. Significant assumptions include:

- Future Net operating margins. Our estimates of future Net operating margins are based on our analysis of various supply and demand factors, which include, among other things, industry-wide capacity, our planned utilization rate, end-user demand, capital expenditures and economic conditions as well as commodity prices. Such estimates are consistent with those used in our planning and capital investment reviews.
- Future volumes. Our estimates of future throughput of crude oil, natural gas, NGL and refined product volumes are based on internal forecasts. These throughput assumptions depend, in part, on expected commodity prices. Assumptions about our customers' drilling activity and future commodity prices are inherently subjective and contingent upon a number of variable factors, many of which are difficult to forecast. Management considers the sustained reduction of commodity prices in forecasted cash flows.
- Discount rate commensurate with the risks involved. We apply a discount rate to our cash flows based on a variety of factors, including market and economic conditions, operational risk, regulatory risk and political risk. This discount rate is also compared to recent observable market transactions, if possible. A higher discount rate decreases the net present value of cash flows.
- Future capital requirements. These are based on authorized spending and internal forecasts.

We base our fair value estimates on projected financial information which we believe to be reasonable. However, actual results may differ from these projections.

The need to test for impairment can be based on several indicators, including a significant reduction in prices of or demand for commodities, a poor outlook for profitability, a significant reduction in pipeline throughput volumes, a significant reduction in natural gas or NGL volumes processed, other changes to contracts or changes in the regulatory environment in which the asset or equity method investment is located.

Long-lived assets used in operations are assessed for impairment whenever changes in facts and circumstances indicate that the carrying value of the assets may not be recoverable based on the expected undiscounted future

cash flow of an asset group. For purposes of impairment evaluation, long-lived assets must be grouped at the lowest level for which independent cash flows can be identified, which is at least at the segment level and in some cases for similar assets in the same geographic region where cash flows can be separately identified. If the sum of the undiscounted cash flows is less than the carrying value of an asset group, fair value is calculated, and the carrying value is written down if greater than the calculated fair value.

Unlike long-lived assets, goodwill must be tested for impairment at least annually, and between annual tests if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Goodwill is tested for impairment at the reporting unit level. We have 12 reporting units, eight of which have goodwill allocated to them. At December 31, 2018, we had a total of \$2.6 billion of goodwill recorded on the Consolidated Balance Sheets. The fair value of our reporting units exceeded book value for each of our reporting units in 2018.

MPLX had eight reporting units with goodwill totaling approximately \$2.6 billion as of November 30, 2018. Step 1 of the annual impairment analysis resulted in the fair value of the reporting units exceeding their carrying value by percentages ranging from approximately 14 percent to 5,330 percent. The reporting unit with fair value exceeding its carrying value by approximately 14 percent has goodwill of \$228 million at December 31, 2018. An increase of one percentage point to the discount rate used to estimate the fair value of the reporting units would not have resulted in a goodwill impairment charge as of November 30, 2018. Significant assumptions used to estimate the reporting units' fair value included estimates of future cash flows. If estimates for future cash flows, which are impacted primarily by commodity prices and producer customers' development plans (which impact volumes and capital requirements), were to decline, the overall reporting units' fair value would decrease, resulting in potential goodwill impairment charges. Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the impairment tests will prove to be an accurate prediction of the future.

Equity method investments are assessed for impairment whenever factors indicate an other than temporary loss in value. Factors providing evidence of such a loss include the fair value of an investment that is less than its carrying value, absence of an ability to recover the carrying value or the investee's inability to generate income sufficient to justify our carrying value. At December 31, 2018, we had \$4.2 billion of equity method investments recorded on the Consolidated Balance Sheets.

An estimate of the sensitivity to net income resulting from impairment calculations is not practicable, given the numerous assumptions (e.g., pricing, volumes and discount rates) that can materially affect our estimates. That is, unfavorable adjustments to some of the above listed assumptions may be offset by favorable adjustments in other assumptions.

Acquisitions

In accounting for business combinations, acquired assets, assumed liabilities and contingent consideration are recorded based on estimated fair values as of the date of acquisition. The excess or shortfall of the purchase price when compared to the fair value of the net tangible and identifiable intangible assets acquired, if any, is recorded as goodwill or a bargain purchase gain, respectively. A significant amount of judgment is involved in estimating the individual fair values of property, plant and equipment, intangible assets, contingent consideration and other assets and liabilities. We use all available information to make these fair value determinations and, for certain acquisitions, engage third-party consultants for assistance.

The fair value of assets and liabilities, including contingent consideration, as of the acquisition date are often estimated using a combination of approaches, including the income approach, which requires us to project related future cash inflows and outflows and apply an appropriate discount rate; the cost approach, which requires estimates of replacement costs and depreciation and obsolescence estimates; and the market approach, which

uses market data and adjusts for entity-specific differences. The estimates used in determining fair values are based on assumptions believed to be reasonable but which are inherently uncertain. Accordingly, actual results may differ from the projected results used to determine fair value.

See Item 8. Financial Statements and Supplementary Data—Note 4 for additional information on our acquisitions. See Item 8. Financial Statements and Supplementary Data—Note 16 for additional information on fair value measurements.

Derivatives

We record all derivative instruments at fair value on the Consolidated Balance Sheets. Our crude oil and natural gas commodity derivatives are Level 2 financial instruments. Our NGL commodity derivatives and any option contracts are Level 3 financial instruments due to option volatilities and NGL prices that are interpolated and extrapolated due to inactive markets. Substantially all of our commodity derivative instruments are traded in OTC markets and are appropriately adjusted for non-performance risk.

We have a natural gas purchase commitment embedded in a keep-whole processing agreement with a producer customer in the Southern Appalachian region expiring in December 2022. The customer has the unilateral option to extend the agreements for two consecutive five-year terms through December 2032. For accounting purposes, the natural gas purchase commitment and term extending options have been aggregated into a single compound embedded derivative which is a Level 3 financial instrument and is appropriately adjusted for non-performance risk (the "Natural Gas Embedded Derivative"). The significant unobservable inputs to the valuation of the Natural Gas Embedded Derivative include:

- *Probability of Renewal*. As of December 31, 2018, we believe there is a 90 percent and 80 percent probability that the customer will exercise its first and second term extending options, respectively. The customer must exercise the first term extending option in order for the second term extending option to become available.
- *Commodity Prices*. Third-party forward price curves are not available after 2020, which requires us to extrapolate NGL and natural gas prices.

A ten percent difference in the estimated fair value of the Natural Gas Embedded Derivative at December 31, 2018 would have affected income before taxes by \$6.1 million for the year ended December 31, 2018. If the probabilities of renewal for the Natural Gas Embedded Derivative were changed to 80 percent and 70 percent, the liability would have been reduced by \$3.9 million as of December 31, 2018. If the probabilities of renewal for the Natural Gas Embedded Derivative were changed to 95 percent and 90 percent, the liability would have been increased by \$2.9 million as of December 31, 2018. Fair value estimation for all our derivative instruments is discussed in Item 8. Financial Statements and Supplementary Data—Note 16 and Note 17. Additional information about derivatives and their valuation may be found in Item 7A. Quantitative and Qualitative Disclosures about Market Risk.

Variable Interest Entities

We evaluate all legal entities in which we hold an ownership or other pecuniary interest to determine if the entity is a VIE. Our interests in a VIE are referred to as variable interests. Variable interests can be contractual, ownership or other pecuniary interests in an entity that change with changes in the fair value of the VIE's assets. When we conclude that we hold an interest in a VIE we must determine if we are the entity's primary beneficiary. A primary beneficiary is deemed to have a controlling financial interest in a VIE. This controlling financial interest is evidenced by both (i) the power to direct the activities of the VIE that most significantly impact the VIE's economic performance and (ii) the obligation to absorb losses that could potentially be significant to the VIE or the right to receive benefits that could potentially be significant to the VIE. We consolidate any VIE when we determine that we are the primary beneficiary. We must disclose the nature of any interests in a VIE that is not consolidated.

Significant judgment is exercised in determining that a legal entity is a VIE and in evaluating our interest in a VIE. We use primarily a qualitative analysis to determine if an entity is a VIE. We evaluate the entity's need for continuing financial support; the equity holder's lack of a controlling financial interest; and/or if an equity holder's voting interests are disproportionate to its obligation to absorb expected losses or receive residual returns. We evaluate our interests in a VIE to determine whether we are the primary beneficiary. We use a primarily qualitative analysis to determine if we are deemed to have a controlling financial interest in the VIE, either on a standalone basis or as part of a related party group. We continually monitor our interests in legal entities for changes in the design or activities of an entity and changes in our interests, including our status as the primary beneficiary to determine if the changes require us to revise our previous conclusions.

Changes in the design or nature of the activities of a VIE, or our involvement with a VIE, may require us to reconsider our conclusions on the entity's status as a VIE and/or our status as the primary beneficiary. Such reconsideration requires significant judgment and understanding of the organization. This could result in the deconsolidation or consolidation of the affected subsidiary, which would have a significant impact on our financial statements.

VIEs are discussed in Item 8. Financial Statements and Supplementary Data—Note 5.

Contingent Liabilities

We accrue contingent liabilities for legal actions, claims, litigation, environmental remediation, tax deficiencies related to operating taxes and third-party indemnities for specified tax matters when such contingencies are both probable and estimable. We regularly assess these estimates in consultation with legal counsel to consider resolved and new matters, material developments in court proceedings or settlement discussions, new information obtained as a result of ongoing discovery and past experience in defending and settling similar matters. Actual costs can differ from estimates for many reasons. For instance, settlement costs for claims and litigation can vary from estimates based on differing interpretations of laws, opinions on degree of responsibility and assessments of the amount of damages. Similarly, liabilities for environmental remediation may vary from estimates because of changes in laws, regulations and their interpretation, additional information on the extent and nature of site contamination and improvements in technology.

We generally record losses related to these types of contingencies as cost of revenues or selling, general and administrative expenses on the Consolidated Statements of Income, except for tax deficiencies unrelated to income taxes, which are recorded as other taxes.

An estimate of the sensitivity to net income if other assumptions had been used in recording these liabilities is not practical because of the number of contingencies that must be assessed, the number of underlying assumptions and the wide range of reasonably possible outcomes, in terms of both the probability of loss and the estimates of such loss.

For additional information on contingent liabilities, see Item 8. Financial Statements and Supplementary Data—Note 25.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

We are exposed to market risks related to the volatility of commodity prices. We employ various strategies, including the potential use of commodity derivative instruments, to economically hedge the risks related to these price fluctuations. We are also exposed to market risks related to changes in interest rates. As of December 31, 2018, we did not have any open financial derivative instruments to economically hedge the risks related to interest rate fluctuations or commodity derivative instruments to economically hedge the risks related to the volatility of commodity prices; however, we continually monitor the market and our exposure and may enter into these arrangements in the future. While there is a risk related to changes in fair value of derivative instruments we may enter into; such risk is mitigated by price or rate changes related to the underlying commodity or financial transaction.

Commodity Price Risk

We may at times use a variety of commodity derivative instruments, including futures and options, as part of an overall program to economically hedge commodity price risk. A portion of our profitability is directly affected by prevailing commodity prices primarily as a result of purchasing and selling NGLs and natural gas at index-related prices. To the extent that commodity prices influence the level of drilling by our producer customers, such prices also indirectly affect profitability. We may enter into derivative contracts which are primarily swaps traded on the OTC market as well as fixed price forward contracts. Our risk management policy does not allow us to enter into speculative positions with our derivative contracts. Execution of our hedge strategy and the continuous monitoring of commodity markets and our open derivative positions are carried out by our hedge committee, comprised of members of senior management.

To mitigate our cash flow exposure to fluctuations in the price of NGLs, we primarily use NGL derivative swap contracts. A small portion of our NGL price exposure may be managed by using crude oil contracts. To mitigate our cash flow exposure to fluctuations in the price of natural gas, we primarily use natural gas derivative swap contracts, taking into account the partial offset of our long and short natural gas positions resulting from normal operating activities.

As a result of our derivative positions held during the fourth quarter, we have mitigated a portion of our expected commodity price risk. We would be exposed to additional commodity risk in certain situations such as if producers under-deliver or over-deliver products or if processing facilities are operated in different recovery modes. In the event that we have derivative positions in excess of the product delivered or expected to be delivered, the excess derivative positions may be terminated.

Management conducts a standard credit review on counterparties to derivative contracts, and we have provided the counterparties with a guaranty as credit support for our obligations. A separate agreement with certain counterparties allows MarkWest Liberty Midstream to enter into derivative positions without posting cash collateral. We use standardized agreements that allow for offset of certain positive and negative exposures in the event of default or other terminating events, including bankruptcy.

Outstanding Derivative Contracts

We have a natural gas purchase commitment embedded in a keep-whole processing agreement with a producer customer in the Southern Appalachian region expiring in December 2022. The customer has the unilateral option to extend the agreement for two consecutive five-year terms through December 2032. For accounting purposes, these natural gas purchase commitment and term extending options have been aggregated into a single compound embedded derivative. The probability of the customer exercising its options is determined based on assumptions about the customer's potential business strategy decision points that may exist at the time they would elect whether to renew the contract. The changes in fair value of this compound embedded derivative are based on the difference between the contractual and index pricing, the probability of the producer customer exercising its option to extend and the estimated favorability of these contracts compared to current market conditions. The changes in fair value are recorded in earnings through "Purchased product costs" on the Consolidated Statements of Income. As of December 31, 2018 and 2017, the estimated fair value of this contract was a liability of \$61 million and \$64 million, respectively.

Open Derivative Positions and Sensitivity Analysis

As of December 31, 2018, we have no open commodity derivative contracts. The estimated fair value of our Level 2 and 3 financial instruments are sensitive to the assumptions used in our pricing models. Sensitivity analysis of a ten percent difference in our estimated fair value of Level 2 and 3 commodity derivatives (excluding embedded derivatives) as of December 31, 2018 would not have affected income before income taxes for the year ended December 31, 2018. We evaluate our portfolio of commodity derivative instruments on an ongoing basis and add or revise strategies in anticipation of changes in market conditions and in risk profiles.

Interest Rate Risk

Sensitivity analysis of the effect of a hypothetical 100-basis-point change in interest rates on long-term debt, excluding capital leases, is provided in the following table. Fair value of cash and cash equivalents, receivables, accounts payable and accrued interest approximate carrying value and are relatively insensitive to changes in interest rates due to the short-term maturity of the instruments. Accordingly, these instruments are excluded from the table.

(In millions)	Value as of cember 31, 2018 ⁽¹⁾	ge in Fair alue ⁽²⁾	before taxes for December 1	re income re income ror the Year Ended ember 31, 018 (3)
Long-term debt				
Fixed-rate	\$ 13,169	\$ 1,357		N/A
Variable-rate	\$ _	N/A	\$	2

- (1) Fair value was based on market prices, where available, or current borrowing rates for financings with similar terms and maturities.
- (2) Assumes a 100-basis-point decrease in the weighted average yield-to-maturity at December 31, 2018.
- (3) Assumes a 100-basis-point change in interest rates. The change to net income was based on the weighted average balance of all outstanding variable-rate debt for the year ended December 31, 2018.

At December 31, 2018, our portfolio of long-term debt consisted of fixed-rate instruments and variable-rate instruments under our revolving credit facility, of which we had no outstanding balance at December 31, 2018. The fair value of our fixed-rate debt is relatively sensitive to interest rate fluctuations. Our sensitivity to interest rate declines and corresponding increases in the fair value of our debt portfolio unfavorably affects our results of operations and cash flows only when we elect to repurchase or otherwise retire fixed-rate debt at prices above carrying value. Interest rate fluctuations generally do not impact the fair value of borrowings under our bank revolving credit or term loan facilities, but may affect our results of operations and cash flows. As of December 31, 2018, we did not have any commodity or financial derivative instruments to hedge the risks related to commodity price or interest rate fluctuations; however, we continually monitor the market and our exposure and may enter into these agreements in the future.

Credit Risk

We are subject to risk of loss resulting from non-payment by our customers to whom we provide services or sell natural gas or NGLs. We believe that certain contracts would allow us to pass those losses through to our customers, thus reducing our risk, when we are selling NGLs and acting as our producer customers' agent. Our credit exposure related to these customers is represented by the value of our trade receivables. Where exposed to credit risk, we analyze the customer's financial condition prior to entering into a transaction or agreement, establish credit terms and monitor the appropriateness of these terms on an ongoing basis. In the event of a customer default, we may sustain a loss and our cash receipts could be negatively impacted.

We are subject to risk of loss resulting from non-payment or non-performance by the counterparties to our derivative contracts. Our credit exposure related to commodity derivative instruments is represented by the fair value of contracts with a net positive fair value at the reporting date. These outstanding instruments expose us to credit loss in the event of non-performance by the counterparties to the agreements. Should the creditworthiness of one or more of our counterparties decline, our ability to mitigate non-performance risk is limited to a counterparty agreeing to either a voluntary termination and subsequent cash settlement or a novation of the derivative contract to a third party. In the event of a counterparty default, we may sustain a loss and our cash receipts could be negatively impacted.

Item 8. Financial Statements and Supplementary Data

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Management's Responsibilities for Financial Statements

The accompanying consolidated financial statements of MPLX LP and its subsidiaries (the "Partnership") are the responsibility of management of the Partnership's general partner, MPLX GP LLC, and have been prepared in conformity with accounting principles generally accepted in the United States of America. They necessarily include some amounts that are based on best judgments and estimates. The financial information displayed in other sections of this Annual Report on Form 10-K is consistent with these consolidated financial statements.

MPLX GP LLC seeks to assure the objectivity and integrity of the Partnership's financial records by careful selection of its managers, by organizational arrangements that provide an appropriate division of responsibility and by communications programs aimed at assuring that its policies and methods are understood throughout the organization.

The MPLX GP LLC Board of Directors pursues its oversight role in the area of financial reporting and internal control over financial reporting through its Audit Committee. This committee, composed solely of independent directors, regularly meets (jointly and separately) with the independent registered public accounting firm, management and internal auditors to monitor the proper discharge by each of their responsibilities relative to internal accounting controls and the consolidated financial statements.

/s/ Gary R. Heminger	/s/ Pamela K.M. Beall	/s/ C. Kristopher Hagedorn
Gary R. Heminger	Pamela K.M. Beall	C. Kristopher Hagedorn
Chairman of the Board of Directors	Director, Executive Vice President	Vice President and Controller
and Chief Executive Officer	and Chief Financial Officer	of MPLX GP LLC
of MPLX GP LLC	of MPLX GP LLC	(the general partner of MPLX LP)
(the general partner of MPLX LP)	(the general partner of MPLX LP)	

Management's Report on Internal Control over Financial Reporting

MPLX LP's management is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Securities Exchange Act of 1934, as amended). An evaluation of the design and effectiveness of our internal control over financial reporting, based on the framework in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, was conducted under the supervision and with the participation of management, including our chief executive officer and chief financial officer. Based on the results of this evaluation, MPLX LP's management concluded that its internal control over financial reporting was effective as of December 31, 2018.

The effectiveness of MPLX LP's internal control over financial reporting as of December 31, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

/s/ Gary R. Heminger	/s/ Pamela K.M. Beall
Gary R. Heminger	Pamela K.M. Beall
Chairman of the Board of Directors	Director, Executive Vice President
and Chief Executive Officer	and Chief Financial Officer of
of MPLX GP LLC	MPLX GP LLC
(the general partner of MPLX LP)	(the general partner of MPLX LP)

Report of Independent Registered Public Accounting Firm

To the Partners of MPLX LP and the Board of Directors of MPLX GP LLC

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of MPLX LP and its subsidiaries (the "Company") as of December 31, 2018 and 2017, and the related consolidated statements of income, comprehensive income, cash flows, and equity for each of the three years in the period ended December 31, 2018, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control—Integrated Framework* (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in

accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/PricewaterhouseCoopers LLP

Toledo, Ohio February 28, 2019

We have served as the Company's auditor since 2012.

MPLX LP Consolidated Statements of Income

(In millions, except per unit data)	2	2018	2017		2016
Revenues and other income:					
Service revenue	\$	1,704	\$ 1,156	\$	958
Service revenue—related parties		2,159	1,082		936
Service revenue—product related		198	_		_
Rental income		349	277		298
Rental income—related parties		718	279		235
Product sales		902	889		572
Product sales—related parties		49	8		11
Income/(loss) from equity method investments		240	78		(74)
Other income		7	6		7
Other income—related parties		99	92		86
Total revenues and other income		6,425	3,867		3,029
Costs and expenses:					
Cost of revenues (excludes items below)		948	528		454
Purchased product costs		845	651		448
Rental cost of sales		135	62		57
Rental cost of sales—related parties		5	2		1
Purchases—related parties		860	455		388
Depreciation and amortization		766	683		591
Impairment expense		291	241		130
General and administrative expenses Other taxes		72	241 54		227 50
Total costs and expenses	-	3,922	2,676		2,346
Income from operations		2,503	1,191		683
Related party interest and other financial costs		5	2		1
Interest expense (net of amounts capitalized of \$33 million, \$32 million, and					
\$28 million, respectively)		534	296		210
Other financial costs		122	56		50
Income before income taxes		1,842	837		422
Provision/(benefit) for income taxes		8	1		(12)
Net income		1,834	836		434
Less: Net income attributable to noncontrolling interests		16	6		2
Less: Net income attributable to Predecessor		_	36		199
Net income attributable to MPLX LP		1,818	794		233
Less: Preferred unit distributions		75	65		41
Less: General partner's interest in net income attributable to MPLX LP		_	318		191
Limited partners' interest in net income attributable to MPLX LP	\$	1,743	\$ 411	\$	1
Per Unit Data (See Note 7)					
Net income attributable to MPLX LP per limited partner unit:					
Common—basic	\$	2.29	\$ 1.07	\$	_
Common—diluted	\$	2.29			_
Weighted average limited partner units outstanding:				·	
Common—basic		761	385		331
Common—diluted		761	388		338

MPLX LP Consolidated Statements of Comprehensive Income

(In millions)	2	2018	2017		2016	
Net income	\$	1,834	\$	836	\$	434
Other comprehensive (loss)/income, net of tax:						
Remeasurements of pension and other postretirement benefits						
related to equity method investments, net of tax		(2)				
Comprehensive income		1,832		836		434
Less comprehensive income attributable to:						
Noncontrolling interests		16		6		2
Income attributable to Predecessor				36		199
Comprehensive income attributable to MPLX LP	\$	1,816	\$	794	\$	233

MPLX LP Consolidated Balance Sheets

	Dece	31,	
(In millions)	2018		2017
Assets			
Current assets:			
Cash and cash equivalents	\$ 68	\$	5
Receivables, net	417	!	292
Receivables—related parties	289		160
Inventories	77		65
Other current assets	46	<u> </u>	37
Total current assets	897		559
Equity method investments	4,174		4,010
Property, plant and equipment, net	14,639		12,187
Intangibles, net	424		453
Goodwill	2,586		2,245
Long-term receivables—related parties	24		20
Other noncurrent assets	35		26
Total assets	22,779	<u> </u>	19,500
Liabilities			
Current liabilities:			
Accounts payable	162		151
Accrued liabilities	250		231
Payables—related parties	203		516
Deferred revenue—related parties	51		43
Accrued property, plant and equipment	294		194
Accrued interest payable	143		88
Other current liabilities	83		81
Total current liabilities	1,186		1,304
Long-term deferred revenue	80		42
Long-term deferred revenue—related parties	43		43
Long-term debt	13,392		6,945
Deferred income taxes Deferred credits and other liabilities	13 197		5 188
Total liabilities Commitments and contingencies (see Note 25)	14,911		8,527
Redeemable preferred units	1,004	ļ	1,000
Equity	-,		-,
Common unitholders—public (289 million and 289 million units issued and			
outstanding)	8,336)	8,379
Common unitholder—MPC (505 million and 118 million units issued and outstanding)	(1,612	()	2,099
General partner—MPC (0 million and 8 million units issued and outstanding)	_	-	(637)
Accumulated other comprehensive loss	(16	<u>)) </u>	(14)
Total MPLX LP partners' capital	6,708	,	9,827
Noncontrolling interests	156	<u> </u>	146
Total equity	6,864	+	9,973
Total liabilities, preferred units and equity	\$ 22,779	\$	19,500

MPLX LP Consolidated Statements of Cash Flows

Aphitements to reconcile net income to net cash provided by operating activities:	(In millions)	20	18	2017	2016
Net income \$ 1,84 \$ 8,8 \$ 9,434 Adjustments to reconcile est income to net cash provided by operating activities: 35 35 453 Adjustments to reconcile net income to net cash provided by Operating activities: 766 683 599 Deprecation and amortization of deferred financing costs 766 683 599 Impairment expense 8 (1) (10) Deferred income taxes 8 (1) (10) Asset retirement expensitures 2 2 C (10) Loss/gain) oil disposal of assets 2 2 (1) (10) 4 8 (2) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10) (10)	Increase/(decrease) in cash, cash equivalents and restricted cash				
Aginestmes to reconcile net income to net cash provided by operating activities:	Operating activities:				
Page	Net income	\$	1,834	\$ 836	\$ 434
Deperciation and amortization					
Deferred income taxes					46
Deferred income taxes			766		591
Asset retirement expenditures			_		
Designation of disposal of assets 2 db 0 cb 78 74 75 75 75 75 75 75 75					
Income from equity method investments				(2)	
Distributions from unconsolidated affiliates				(70)	
Current receivables				' '	
Current receivables (12) 8 (52) Inventories (5) (3) (8) Fair value of derivatives (10) 6 43 Current accounts payable and accrued liabilities (10) 63 (14) Receivables from/liabilities to related parties (50) 63 (19) Prepaid other current assets from related parties 7 (8) — Deferred revenue 39 33 10 All other, net 45 28 16 Net cash provided by operating activities 2.82 1.90 1.411 (1,313 Acquisitions, net of cash acquired (1,919) (1,411) (1,313 Acquisitions, net of cash acquired (451) (249) — Investments—net related party loans - 80 (17 Disposal of assets 8 7 1 Investments in unconsolidated affiliates—return of capital 16 26 — Distributions from unconsolidated affiliates—return of capital 18 2 1 — <th< td=""><td></td><td></td><td>400</td><td>241</td><td>148</td></th<>			400	241	148
Inventories			(100)	0	(50)
Fair value of derivatives (10) 6 43 Current accounts payable and accrued liabilities 100 48 102 Receivables from/liabilities to related parties (50) 63 (19) Prepaid other current assets from related parties 7 (8) — Deferred revenue 39 33 10 All other, net 45 28 16 Net cash provided by operating activities 28 12 149 Investing activities (1,919) (1,411) (1,313 Acquisitions, net of cash acquired (451) (249) — Investinents—net related party loans — 80 (17 Investinents—net related party loans (34) (761) (87			. ,		` '
Current accounts payable and accrued liabilities 100 48 102 Receivables from/liabilities to related parties 500 63 109 Prepaid other current assets from related parties 7 (8) — Deferred revenue 39 33 10 All other, net 45 28 16 Net cash provided by operating activities 2,826 1,907 1,491 Investing activities 3 2,286 1,907 1,491 Investing activities 3 1,191 (1,313 Acquisitions to property, plant and equipment (1,919) (1,411) (1,313 Additions to property, plant and equipment (451) (249) ————————————————————————————————————			. ,	` '	
Receivables from/liabilities to related parties (50) 63 (19) Prepaid other current assets from related parties 7 (8) — Deferred revenue 39 33 10 All other, net 25 1,907 1,491 Investing activities — 8 1,907 1,411 Redictions to property, plant and equipment (1,919) (1,411) (1,313) Acquisitions, net of cash acquired 461 (249) — Investments—tre leated party loans — 80 (17 Disposal of assets 8 7 1 Investments in unconsolidated affiliates—return of capital 16 26 — All other, net 2,686 2,389 (1,417) Post cash used in investing activities 2,686 2,389 (1,417) Financing activities 4,680 (4,60) (3,14) (76) (29 — Long particular debt—borrowings 3,962 2,369 2,532 — 1,60 (2,50) — 1,60			(- /	-	
Prepaid other current assets from related parties 7 (8) ————————————————————————————————————					
Deferred revenue					(19)
All other, net					
Net cash provided by operating activities					
Moditions to property, plant and equipment (1,919	All other, net		45	28	16
Additions to property, plant and equipment (1,919) (1,411) (1,313) Acquisitions, net of cash acquired (451) (249) — Investments—net related party loans — 80 (17 Disposal of assets 8 7 1 Investments in unconsolidated affiliates (341) (761) (87 Distributions from unconsolidated affiliates—return of capital 16 26 — All other, net 1 — (1 Net cash used in investing activities (2,686) (2,308) (1,417) Financing activities — — (1 — (1 Long-term debt—borrowings 13,186 2,911 434 — — — 434 — — 1,434 — — — 4 — — 1,434 — — — 4 — — — 4 4 — — — — — — — — — — — —	Net cash provided by operating activities		2,826	1,907	1,491
Acquisitions, net of cash acquired Investments—net related party loans (451) (249) — Investments—net related party loans - 80 (17) Disposal of assets 8 7 1 Investments in unconsolidated affiliates (341) (761) (87) Distributions from unconsolidated affiliates—return of capital 1 - (1 All other, net 1 - (1 Net cash used in investing activities 2(2686) (2308) (1,417) Financing activities Long-term debt—borrowings 13,186 2,911 434 —repayments (6,780) (416) (1,312 Related party debt—borrowings 3,962 2,369 2,532 —repayments (6,780) (416) (1,312 Related party debt—borrowings 3,962 2,369 2,532 —repayments (6,780) (49) — Debt issuance costs (76) (29) — Net proceeds from equity offerings (76) (29) —					
Investments—net related party loans — 80 (17) Disposal of assets (341) (761) (87) Distributions from unconsolidated affiliates (341) (761) (87) Distributions from unconsolidated affiliates—return of capital 16 26 — All other, net 2,686 2,308 (1,417) Financing activities Net cash used in investing activities 2,686 2,911 434 Net cash used in investing activities 13,186 2,911 434 — repayments (6,780) (416) (1,312 — repayments (6,780) (416) (1,312 Related party debt—borrowings 3,962 2,369 2,532 — repayments (4,347) (1,983) (2,540) Debt issuance costs (76) (29) — Net proceeds from equity offerings (71) (65) (25 Issuance or fedeemable preferred units (71) (65) (25 Distributions to MPC for acquisitions (4,111) <td>Additions to property, plant and equipment</td> <td></td> <td>(1,919)</td> <td>(1,411)</td> <td>(1,313)</td>	Additions to property, plant and equipment		(1,919)	(1,411)	(1,313)
Disposal of assets 8 7 1 Investments in unconsolidated affiliates (341) (761) (87 Distributions from unconsolidated affiliates—return of capital 16 26 — All other, net 1 — (1 Net cash used in investing activities (2,686) (2,308) (1,417) Financing activities Long-term debt—borrowings 13,186 2,911 434 —repayments (6,780) (416) (1,312 Related party debt—borrowings 3,962 2,369 2,532 —repayments (6,780) (419) (2,540) Debt issuance costs (6,780) (4,347) (1,983) (2,540) Net proceeds from equity offerings — 483 792 Issuance of redeemable preferred units (7) (65) (25 Distributions to preferred unitholders (71) (65) (25 Distributions to MPC from equisitions (4,111) (1,951) (104 Distributions to MPC from Predecessor (1,819)<	Acquisitions, net of cash acquired		(451)	(' '	_
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Distributions from unconsolidated affiliates—return of capital 16 26 ————————————————————————————————————					1
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	Cash, cash equivalents and restricted cash at end of period	\$	76	\$ 9	\$ 239

MPLX LP Consolidated Statements of Equity

	Partnership							
(In millions)	Common Unitholders Public	Class B Unitholders Public	Common Unitholder MPC	General Partner MPC	Accumulated Other Comprehensive Loss	Non- controlling Interests	Equity of Predecessor	Total
Balance at December 31, 2015	\$ 7,691	\$ 266	\$ 465	\$ 819	\$ —	\$ 13	\$ 692	\$ 9,946
Net (loss)/income (excludes								
amounts attributable to preferred units)	(5	`	6	191		2	199	393
Unit issuances under ATM	(3) —	Ü	171	_	2	199	373
Program	776		_	16	_	_	_	792
Class B unit conversion	133	(133)	_	_	_	_	_	_
Deferred income tax impact from changes in equity	(2) _	(13)	(2)				(17)
Allocation of MPC's net	(2	, –	(13)	(2)	_	_	_	(17)
investment at acquisition	_	_	669	(337)	_	_	(332)	_
Distributions to:							(104)	(104)
MPC from Predecessor Unitholders and GP	(513		(142)	(190)			(104)	(104) (845)
Noncontrolling interests	(313	_	(112)		_	(3)	_	(3)
MPC of MarkWest								
Hydrocarbon Contributions from:	_	_	_	563	_	_	_	563
MPC		_	84	141	_	_	_	225
MPC (non-cash)	_	_	_	_	_	_	336	336
Noncontrolling interests	_	_	_	_	_	6	_	6
MPC of MarkWest Hydrocarbon				(188)			_	(188)
Other	6	_	_	(100)	_	_	_	6
Balance at December 31, 2016	8,086	133	1,069	1,013		18	791	11,110
Net income (excludes amounts	0,000	155	1,000	1,015		10	,,,,	11,110
attributable to preferred units)	301	_	110	318	_	6	36	771
Unit issuances under ATM	472			10				102
Program Class B unit conversion	473 133		_	10	_	_	_	483
Allocation of MPC's net	100	(100)						
investment at acquisition	_	_	1,669	(266)	_	_	(1,403)	_
Distributions to: MPC from Predecessor							(113)	(113)
MPC for acquisitions	_	_	(537)	(1,394)	_	_	(113)	(1,931)
Unitholders and GP	(622) —	(212)	(286)		_	_	(1,120)
Noncontrolling interests	_	_	_	_	_	(7)	_	(7)
MPC of cash received from Joint-Interest Acquisition								
entities	_	_	_	(32)	_	_	_	(32)
Contributions from:								
MPC	_	_	_	_	(14)	129	689	675 129
Noncontrolling interests Other	8	_	_	_	_	129	_	8
Balance at December 31, 2017	8,379		2,099	(637)	(14)	146		9,973
Net income (excludes amounts	0,379	_	2,099	(037)	(14)	140	_	9,913
attributable to preferred units)	667	_	1,076	_	_	16	_	1,759
Allocation of MPC's net			5 172	(4.100)			(1.046)	
investment at acquisition Conversion of GP economic		_	5,172	(4,126)	_	_	(1,046)	_
interests		_	(7,926)	7,926	_	_	_	_
Distributions to:								
MPC for acquisitions	(722	_	(936)	(3,164)	_	_	_	(4,100)
Unitholders Noncontrolling interests	(722	, <u> </u>	(1,097)	_	_	(17)	_	(1,819) (17)
Contributions from:						(-1)		()
MPC	-	_	_	_	_		1,046	1,046
Noncontrolling interests Other	12		_	_ 1	(2)	11	_	11 11
			¢ (1.612)				<u> </u>	
Balance at December 31, 2018	\$ 8,336	\$ <u> </u>	\$ (1,612)	\$ <u></u>	\$ (16)	\$ 156	\$ —	\$ 6,864

1. Description of the Business and Basis of Presentation

Description of the Business—MPLX LP is a diversified, large-cap master limited partnership formed by Marathon Petroleum Corporation ("MPC") that owns and operates midstream energy infrastructure and logistics assets, and provides fuels distribution services. References in this report to "MPLX LP," "MPLX," "the Partnership," "we," "ours," "us," or like terms refer to MPLX LP and its subsidiaries. References to "MPC" refer collectively to Marathon Petroleum Corporation as our sponsor and its subsidiaries, other than the Partnership. MPLX is engaged in the gathering, processing and transportation of natural gas; the gathering, transportation, fractionation, storage and marketing of NGLs; and the transportation, storage and distribution of crude oil and refined petroleum products. MPLX's principal executive office is located in Findlay, Ohio. MPLX was formed on March 27, 2012 as a Delaware limited partnership and completed its Initial Offering on October 31, 2012.

MPLX's business consists of two segments based on the nature of services it offers: Logistics and Storage ("L&S"), which relates primarily to crude oil and refined petroleum products, and Gathering and Processing ("G&P"), which relates primarily to natural gas and NGLs. See Note 10 for additional information regarding the operations and results of these segments.

Basis of Presentation—The consolidated financial statements include all majority-owned and controlled subsidiaries. For non-wholly-owned consolidated subsidiaries, the interests owned by third parties have been recorded as "Noncontrolling interests" on the accompanying Consolidated Balance Sheets. Intercompany investments, accounts and transactions have been eliminated. MPLX's investments in which MPLX exercises significant influence but does not control and does not have a controlling financial interest are accounted for using the equity method. MPLX's investments in a VIE in which MPLX exercises significant influence but does not control and is not the primary beneficiary are also accounted for using the equity method. Certain prior period financial statement amounts have been reclassified to conform to current period presentation. The accompanying consolidated financial statements of MPLX have been prepared in accordance with GAAP.

2. Summary of Principal Accounting Policies

Use of Estimates—The preparation of financial statements in accordance with GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities as of the date of the consolidated financial statements and the reported amounts of revenues and expenses during the respective reporting periods. Actual results could differ materially from those estimates. Estimates are subject to uncertainties due to the levels of subjectivity and judgment necessary to account for highly uncertain matters or the susceptibility of such matters to change and affect items such as valuing identified intangible assets; determining the fair value of derivative instruments; evaluating impairments of long-lived assets, goodwill and equity investments; establishing estimated useful lives for long-lived assets; acquisition accounting; recognizing share-based compensation expense; estimating revenues, expense accruals and capital expenditures; valuing AROs; and determining liabilities, if any, for environmental and legal contingencies.

Revenue Recognition—As a result of the adoption of the new revenue recognition standard, as described further in Note 3, MPLX has updated its policies as they relate to revenue recognition. Revenue is measured based on consideration specified in a contract with a customer. MPLX recognizes revenue when it satisfies a performance obligation by transferring control over a product or providing services to a customer.

MPLX enters into a variety of contract types in order to generate "Product sales" and "Service revenue." MPLX provides services under the following types of arrangements:

• *Fee-based arrangements*—Under fee-based arrangements, MPLX receives a fee or fees for one or more of the following services: gathering, processing and transportation of natural gas; gathering,

transportation, fractionation, exchange and storage of NGLs; and transportation, storage and distribution of crude oil, refined products and other hydrocarbon-based products. The revenue MPLX earns from these arrangements is generally directly related to the volume of natural gas, NGLs, refined products or crude oil that is handled by or flows through MPLX's systems and facilities and is not normally directly dependent on commodity prices. In certain cases, MPLX's arrangements provide for minimum annual payments or fixed demand charges.

Fee-based arrangements are reported as "Service revenue" on the Consolidated Statements of Income. Revenue is recognized over time as services are performed. In certain instances when specifically stated in the contract terms, MPLX purchases product after fee-based services have been provided. Revenue from the sale of products purchased after services are provided is reported as "Product sales" on the Consolidated Statements of Income and recognized on a gross basis, as MPLX takes control of the product and is the principal in the transaction.

- Percent-of-proceeds arrangements—Under percent-of-proceeds arrangements, MPLX: gathers and processes natural gas on behalf of producers; sells the resulting residue gas, condensate and NGLs at market prices; and remits to producers an agreed-upon percentage of the proceeds. In other cases, instead of remitting cash payments to the producer, MPLX delivers an agreed-upon percentage of the residue gas and NGLs to the producer (take-in-kind arrangements) and sells the volumes MPLX retains to third parties.
 Revenue is recognized on a net basis when MPLX acts as an agent and does not have control of the gross amount of gas and/or NGLs prior to it being sold. Percent-of-proceeds revenue is reported as "Service revenue—product related" on the Consolidated Statements of Income.
- Keep-whole arrangements—Under keep-whole arrangements, MPLX gathers natural gas from the producer, processes the natural gas and sells the resulting condensate and NGLs to third parties at market prices. Because the extraction of the condensate and NGLs from the natural gas during processing reduces the Btu content of the natural gas, MPLX must either purchase natural gas at market prices for return to producers or make cash payment to the producers equal to the value of the energy content of this natural gas. Certain keep-whole arrangements also have provisions that require MPLX to share a percentage of the keep-whole profits with the producers based on the oil to gas ratio or the NGL to gas ratio. "Service revenue—product related" is recorded based on the value of the NGLs received on the date the services are performed. Natural gas purchased to return to the producer and shared NGL profits are recorded as a reduction of "Service revenue—product related" on the Consolidated Statements of Income on the date the services are performed. Sales of NGLs under these arrangements are reported as "Product sales" on the Consolidated Statements of Income and are reported on a gross basis as MPLX is the principal in the arrangement and controls the product prior to sale. The sale of the NGLs may occur shortly after services are performed at the tailgate of the plant, or after a period of time as determined by MPLX.
- Purchase arrangements—Under purchase arrangements, MPLX purchases natural gas at either the wellhead
 or the tailgate of a plant. MPLX then gathers and delivers the natural gas to pipelines where MPLX may
 resell the natural gas. Wellhead purchase arrangements represent an arrangement with a supplier and are
 recorded in "Purchased product costs." Often, MPLX earns fees for services performed prior to taking
 control of the product in these arrangements and "Service revenue" is recorded for these fees. Revenue
 generated from the sale of product obtained in tailgate purchase arrangements is reported as "Product sales"
 on the Consolidated Statements of Income and is recognized on a gross basis as MPLX purchases and takes
 control of the product prior to sale and is the principal in the transaction.

In many cases, MPLX provides services under contracts that contain a combination of more than one of the arrangements described above. When fees are charged (in addition to product received) under percent-of-proceeds arrangements, keep-whole arrangements or purchase arrangements, MPLX records such fees as "Service revenue" on the Consolidated Statements of Income. The terms of MPLX's contracts vary based on gas quality conditions, the competitive environment when the contracts are signed and customer requirements.

Performance obligations are determined based on the specific terms of the arrangements, economics of the geographical regions, and the services offered and whether they are deemed distinct. MPLX allocates the consideration earned between the performance obligations based on the stand-alone selling price when multiple performance obligations are identified.

Revenue from MPLX's service arrangements will generally be recognized over time as the performance obligation is satisfied as services are provided. MPLX has elected to use the output measure of progress to recognize revenue based on the units delivered, processed or transported. The transaction price has fixed components related to minimum volume commitments and variable components which are primarily dependent on volumes. Variable consideration will generally not be estimated at contract inception as the transaction price is specifically allocable to the services provided each period. In instances in which tiered pricing structures do not reflect our efforts to perform, MPLX will estimate variable consideration at contract inception. "Product sales" will be recognized at a point in time when control of the product transfers to the customer.

Minimum volume commitments may create contract liabilities or deferred credits if current period payments can be used for future services. Breakage is estimated and recognized into service revenue in instances where it is probable the customer will not use the credit in future periods.

Amounts billed to customers for shipping and handling, electricity, and other costs to perform services are included in "Service revenue" on the Consolidated Statements of Income. Shipping and handling costs associated with product sales are included in "Purchased product costs" on the Consolidated Statements of Income. Facility expenses, costs of revenues and depreciation represent those expenses related to operating our various facilities and are necessary to provide both "Product sales" and "Service revenue."

Customers usually pay monthly based on the products purchased or services performed that month. Taxes collected from customers and remitted to the appropriate taxing authority are excluded from revenue.

Based on the terms of certain natural gas gathering, transportation and processing agreements, MPLX is considered to be the lessor under several implicit operating lease arrangements in accordance with GAAP. Revenue and costs related to the portion of the revenue earned under these contracts considered to be implicit leases are recorded as "Rental income" and "Rental cost of sales," respectively, on the Consolidated Statements of Income.

Revenue and Expense Accruals—MPLX routinely makes accruals based on estimates for both revenues and expenses due to the timing of compiling billing information, receiving certain third-party information and reconciling MPLX's records with those of third parties. The delayed information from third parties includes, among other things, actual volumes purchased, transported or sold, adjustments to inventory and invoices for purchases, actual natural gas and NGL deliveries and other operating expenses. MPLX makes accruals to reflect estimates for these items based on its internal records and information from third parties. Estimated accruals are adjusted when actual information is received from third parties and MPLX's internal records have been reconciled.

Cash and Cash Equivalents—Cash and cash equivalents include cash on hand and on deposit and investments in highly liquid debt instruments with initial maturities of three months or less.

Restricted Cash—Restricted cash consists of cash and investments that must be maintained as collateral for letters of credit issued to certain third-party producer customers. The balances will be outstanding until certain capital projects are completed and the third party releases the restriction. Restricted cash also consists of cash advances to be used for the operation and maintenance of an operated pipeline. At December 31, 2018 and 2017, the amount of restricted cash included in "Other current assets" on the Consolidated Balance Sheets was \$8 million and \$4 million, respectively.

Receivables—Receivables primarily consist of customer accounts receivable, which are recorded at the invoiced amount and generally do not bear interest. Management reviews the allowance quarterly. Past-due balances over 90 days and other higher- risk amounts are reviewed individually for collectability. Balances that remain outstanding after reasonable collection efforts have been unsuccessful are written off through a charge to the valuation allowance and a credit to accounts receivable.

Inventories—Inventories consist primarily of natural gas, propane, other NGLs and materials and supplies to be used in operations. Natural gas, propane, and other NGLs are valued at the lower of cost or market value. Materials and supplies are stated at the lower of cost or market value. Cost for materials and supplies are determined primarily using the weighted-average cost method.

Imbalances—Within our pipelines and storage assets, we experience volume gains and losses due to pressure and temperature changes, evaporation and variances in meter readings and other measurement methods. Until settled, positive imbalances are recorded as other current assets and negative imbalances are recorded as accounts payable. Positive and negative product imbalances are settled in cash, settled by physical delivery of gas from a different source, or tracked and settled in the future.

Property, Plant and Equipment—Property, plant and equipment are recorded at cost and depreciated on a straight-line basis over the estimated useful lives of the assets. Expenditures that extend the useful lives of assets are capitalized. Such assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If the sum of the expected undiscounted future cash flows from the use of the asset and its eventual disposition is less than the carrying amount of the asset, an impairment assessment is performed and the excess of the book value over the fair value is recorded as an impairment loss.

Interest costs for the construction or development of long-lived assets are capitalized and amortized over the related asset's estimated useful life.

When items of property, plant and equipment are sold or otherwise disposed of, any gains or losses are reported on the Consolidated Statements of Income. Gains on the disposal of property, plant and equipment are recognized when they occur, which is generally at the time of closing. If a loss on disposal is expected, such losses are recognized when the assets are classified as held for sale.

Goodwill and Intangibles—Goodwill represents the excess of the purchase price over the estimated fair value of the net assets acquired in the acquisition of a business. Goodwill is not amortized, but rather is tested for impairment annually and when events or changes in circumstances indicate that the fair value of a reporting unit with goodwill has been reduced below carrying value. The impairment test requires allocating goodwill and other assets and liabilities to reporting units. The fair value of each reporting unit is determined and compared to the carrying value of the reporting unit. The fair value is calculated using the expected present value of future cash flows method. Significant assumptions used in the cash flow forecasts include future Net operating margins, future volumes, discount rates, and future capital requirements. If the fair value of the reporting unit is less than the carrying value, including goodwill, the implied fair value of goodwill is calculated. The excess, if any, of the book value over the implied fair value of goodwill is charged to net income as an impairment expense.

Amortization of intangibles with definite lives is calculated using the straight-line method which is reflective of the benefit pattern in which the estimated economic benefit is expected to be received over the estimated useful life of the intangible asset. Intangibles subject to amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the intangible may not be recoverable. If the sum of the expected undiscounted future cash flows related to the asset is less than the carrying amount of the asset, an impairment loss is recognized based on the fair value of the asset. Intangibles not subject to amortization are tested for impairment annually and when circumstances indicate that the fair value is less than the carrying amount of the intangible. If the fair value is less than the carrying value, an impairment is recorded for the difference.

There were no impairments as a result of MPLX's November 30, 2018 and November 30, 2017 annual goodwill impairment analyses. During 2016, impairment charges of approximately \$130 million were recorded.

Other Taxes—Other taxes primarily include real estate taxes.

Environmental Costs—Environmental expenditures are capitalized if the costs mitigate or prevent future contamination or if the costs improve environmental safety or efficiency of the existing assets. MPLX recognizes remediation costs and penalties when the responsibility to remediate is probable and the amount of associated costs can be reasonably estimated. The timing of remediation accruals coincides with completion of a feasibility study or the commitment to a formal plan of action. Remediation liabilities are accrued based on estimates of known environmental exposure.

Asset Retirement Obligations—An ARO is a legal obligation associated with the retirement of tangible long-lived assets that generally result from the acquisition, construction, development or normal operation of the asset. AROs are recorded at fair value in the period in which they are incurred, if a reasonable estimate of fair value can be made, and added to the carrying amount of the associated asset. This additional carrying amount is then depreciated over the life of the asset. The liability is determined using a credit adjusted risk free interest rate and increases due to the passage of time based on the time value of money until the obligation is settled. MPLX recognizes a liability of a conditional ARO as soon as the fair value of the liability can be reasonably estimated. A conditional ARO is defined as an unconditional legal obligation to perform an asset retirement activity in which the timing and/or method of settlement are conditional on a future event that may or may not be within the control of the entity. AROs have not been recognized for certain assets because the fair value cannot be reasonably estimated since the settlement dates of the obligations are indeterminate. Such obligations will be recognized in the period when sufficient information becomes available to estimate a range of potential settlement dates.

Investment in Unconsolidated Affiliates—Equity investments in which MPLX exercises significant influence, but does not control and is not the primary beneficiary, are accounted for using the equity method and are reported in "Equity method investments" on the accompanying Consolidated Balance Sheets. This includes entities in which we hold majority ownership but the minority shareholders have substantive participating rights. Differences in the basis of the investments and the separate net asset values of the investees, if any, are amortized into net income over the remaining useful lives of the underlying assets and liabilities, except for the excess related to goodwill.

MPLX believes the equity method is an appropriate means for it to recognize increases or decreases measured by GAAP in the economic resources underlying the investments. Regular evaluation of these investments is appropriate to evaluate any potential need for impairment. MPLX uses evidence of a loss in value to identify if an investment has an other than a temporary decline.

Deferred Financing Costs—Deferred financing costs are an asset for credit facility costs and netted against debt for senior notes. These costs are amortized over the contractual term of the related obligations using the effective interest method or, in certain circumstances, accelerated if the obligation is refinanced.

Derivative Instruments—MPLX uses commodity derivatives to economically hedge a portion of its exposure to commodity price risk. All derivative instruments (including derivatives embedded in other contracts) are recorded at fair value. Certain commodity derivatives are reflected on the consolidated balance sheets on a net basis by counterparty as they are governed by master netting arrangements. MPLX discloses the fair value of all derivative instruments under the captions "Other noncurrent assets," "Other current liabilities" and "Deferred credits and other liabilities" on the Consolidated Balance Sheets. Changes in the fair value of derivative instruments are reported on the Consolidated Statements of Income in accounts related to the item whose value or cash flows are being managed. All derivative instruments are marked to market through "Product sales," "Purchased product costs," or "Cost of revenues" on the Consolidated Statements of Income. Revenue gains and

losses relate to contracts utilized to manage the cash flow for the sale of a product, typically NGLs. Purchased product costs gains and losses relate to contracts utilized to manage the cost of natural gas purchases, typically related to keep-whole arrangements. Cost of revenues gains and losses relate to a contract utilized to manage electricity costs. Changes in risk management for unrealized activities are reported as an adjustment to net income in computing cash flow from operating activities on the accompanying Consolidated Statements of Cash Flows.

During the years ended December 31, 2018, 2017 and 2016, MPLX did not elect hedge accounting for any derivatives. MPLX has elected the normal purchases and normal sales designation for certain contracts related to the physical purchase of electric power.

Fair Value of Financial Instruments—Management believes the carrying amount of financial instruments, including cash and cash equivalents, receivables, receivables from related parties, other current assets, accounts payable, accounts payable to related parties and accrued liabilities approximate fair value because of the short-term maturity of these instruments. The recorded value of the amounts outstanding under the bank revolving credit facility, if any, approximate fair value due to the variable interest rate that approximates current market rates (see Note 16). Derivative instruments are recorded at fair value, based on available market information (see Note 17).

Fair Value Measurement—Financial assets and liabilities recorded at fair value in the Consolidated Balance Sheets are categorized based upon the fair value hierarchy established by GAAP, which classifies the inputs used to measure fair value into Level 1, Level 2 or Level 3. A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The methods and assumptions utilized may produce a fair value that may not be realized in future periods upon settlement. Furthermore, while MPLX believes its valuation methods are appropriate and consistent with other market participants, the use of different methodologies or assumptions to determine the fair value of certain financial instruments could result in a different estimate of fair value at the reporting date. For further discussion see Note 16.

Equity-Based Compensation Arrangements—MPLX issues phantom units under its share-based compensation plan as described further in Note 22. A phantom unit entitles the grantee a right to receive a common unit upon the issuance of the phantom unit. The fair value of phantom unit awards granted to employees and non-employee directors is based on the fair market value of MPLX LP common units on the date of grant. The fair value of the units awarded is amortized into earnings using a straight-line amortization schedule over the period of service corresponding with the vesting period. For phantom units that vest immediately and are not forfeitable, equity-based compensation expense is recognized at the time of grant.

Performance units paying out in cash are accounted for as liability awards and recorded at fair value with a mark-to-market adjustment made each quarter. The performance units paying out in units are accounted for as equity awards and use a Monte Carlo valuation model to calculate a grant date fair value.

To satisfy common unit awards, MPLX may issue new common units, acquire common units in the open market or use common units already owned by the general partner.

Tax Effects of Share-Based Compensation—MPLX elected to adopt the simplified method to establish the beginning balance of the additional paid-in capital pool ("APIC Pool") related to the tax effects of employee share-based compensation and to determine the subsequent impact on the APIC Pool and Consolidated Statements of Cash Flows of the tax effects of share-based compensation awards that were outstanding upon adoption. Additional paid-in capital is reported as "Common unitholders—public" on the accompanying Consolidated Balance Sheets.

Income Taxes—MPLX is not a taxable entity for federal income tax purposes. As a result of the MarkWest Merger, MarkWest was the surviving entity for tax purposes. MarkWest is not a taxable entity for federal income

tax purposes. As such, MPLX does not directly pay federal income tax. Taxes on MPLX's net income generally are borne by its partners through the allocation of taxable income. MPLX's taxable income or loss, which may vary substantially from the net income or loss reported on the Consolidated Statements of Income, is includable in the federal income tax returns of each partner. MPLX and certain legal entities are, however, taxable entities under certain state jurisdictions.

MPLX accounts for income taxes under the asset and liability method. Deferred income taxes are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax basis, capital loss carryforwards and net operating loss and credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates applied to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect of any tax rate change on deferred taxes is recognized as tax expense/(benefit) from continuing operations in the period that includes the enactment date of the tax rate change. Realizability of deferred tax assets is assessed and, if not more likely than not, a valuation allowance is recorded to reflect the deferred tax assets at net realizable value as determined by management. All deferred tax balances are classified as long-term in the accompanying Consolidated Balance Sheets. All changes in the tax bases of assets and liabilities are allocated among operations and items charged or credited directly to equity.

Distributions—In preparing the Consolidated Statements of Equity, net income attributable to MPLX LP is allocated to preferred unitholders based on a fixed distribution schedule, as discussed in Note 9, and subsequently allocated to the general partner and limited partner unitholders. Distributions, although earned, are not accrued as a liability until declared. However, when distributions related to the eliminated IDRs were made, earnings equal to the amount of those distributions were first allocated to the general partner before the remaining earnings are allocated to the limited partner unitholders based on their respective ownership percentages. The allocation of net income attributable to MPLX LP for purposes of calculating net income per limited partner unit is described in below.

Net Income Per Limited Partner Unit—MPLX uses the two-class method when calculating the net income per unit applicable to limited partners, because there is more than one class of participating security. The classes of participating securities include common units, general partner units, preferred units, certain equity-based compensation awards and eliminated IDRs. Class B units are considered to be a separate class of common units that do not participate in distributions.

Net income attributable to MPLX LP is allocated to the unitholders differently for preparation of the Consolidated Statements of Equity and the calculation of net income per limited partner unit. In preparing the Consolidated Statements of Equity, net income attributable to MPLX LP is allocated to preferred unitholders based on a fixed distribution schedule and subsequently allocated to remaining unitholders in accordance with their respective ownership percentages. However, prior to 2018 when distributions related to the eliminated IDRs were made, earnings equal to the amount of those distributions are first allocated to the general partner before the remaining earnings are allocated to the unitholders, except Class B unitholders, based on their respective ownership percentages. Subsequent to the conversion of the general partner to a non-economic interest as described in Note 8, no earnings will be allocated to the general partner. Distributions, although earned, are not accrued until declared. The allocation of net income attributable to MPLX LP for purposes of calculating net income per limited partner unit is described in Note 7.

In preparing net income per limited partner units, during periods in which a net loss attributable to MPLX is reported or periods in which the total distributions exceed the reported net income attributable to MPLX's unitholders, the amount allocable to certain equity-based compensation awards is based on actual distributions to the equity-based compensation awards. Diluted earnings per unit is calculated by dividing net income attributable to MPLX's common unitholders, after deducting amounts allocable to other participating securities, by the weighted average number of common units and potential common units outstanding during the period. Potential common units are excluded from the calculation of diluted earnings per unit during periods in which net income

attributable to MPLX's unitholders, after deducting amounts that are allocable to the outstanding equity-based compensation awards, preferred units, and eliminated IDRs, is a loss as the impact would be anti-dilutive.

Business Combinations—MPLX recognizes and measures the assets acquired and liabilities assumed in a business combination based on their estimated fair values at the acquisition date, with any remaining difference recorded as goodwill or gain from a bargain purchase. For all material acquisitions, management engages an independent valuation specialist to assist with the determination of fair value of the assets acquired, liabilities assumed, noncontrolling interests, if any, and goodwill, based on recognized business valuation methodologies. If the initial accounting for the business combination is incomplete by the end of the reporting period in which the acquisition occurs, an estimate will be recorded. Subsequent to the acquisition, and not later than one year from the acquisition date, MPLX will record any material adjustments to the initial estimate based on new information obtained that would have existed as of the acquisition date. An adjustment that arises from information obtained that did not exist as of the date of the acquisition will be recorded in the period of the adjustment. An income, market or cost valuation method may be utilized to estimate the fair value of the assets acquired, liabilities assumed, and noncontrolling interests, if any, in a business combination. The income valuation method represents the present value of future cash flows over the life of the asset using: (i) discrete financial forecasts, which rely on management's estimates of volumes, NGL prices, revenue and operating expenses; (ii) long-term growth rates; and (iii) appropriate discount rates. The market valuation method uses prices paid for a reasonably similar asset by other purchasers in the market, with adjustments relating to any differences between the assets. The cost valuation method is based on the replacement cost of a comparable asset at prices at the time of the acquisition reduced for depreciation of the asset. Acquisition-related costs are expensed as incurred in connection with each business combination. See Note 4 for more information about the acquisitions.

Accounting for Changes in Ownership Interests in Subsidiaries—MPLX's ownership interest in a consolidated subsidiary may change if it sells a portion of its interest or acquires additional interest or if the subsidiary issues or repurchases its own shares. If the transaction does not result in a change in control over the subsidiary, the transaction is accounted for as an equity transaction. If a sale results in a loss of control, it would result in the deconsolidation of a subsidiary with a gain or loss recognized on the Consolidated Statements of Income unless the subsidiary meets the definition of in-substance real estate. Deconsolidation of in-substance real estate is recorded at cost with no gain or loss recognized. If the purchase of additional interest occurs which changes the acquirer's ownership interest from noncontrolling to controlling, the acquirer's preexisting interest in the acquiree is remeasured to its fair value, with a resulting gain or loss recorded in earnings upon consummation of the business combination. Once an entity has control of a subsidiary, its acquisitions of some or all of the noncontrolling interests in that subsidiary are accounted for as equity transactions and are not considered to be a business combination.

3. Accounting Standards

Recently Adopted

ASU 2014-09, Revenue—Revenue from Contracts with Customers

In May 2014, the FASB issued ASU 2014-09, which created ASC Topic 606 ("ASC 606"), Revenue from Contracts with Customers. The guidance in ASC 606 states that revenue is recognized when a customer obtains control of a good or service. Recognition of revenue involves a multiple step approach including identifying the contract, identifying the separate performance obligations, determining the transaction price, allocating the price to the performance obligations and recognizing revenue as the obligations are satisfied. Additional disclosures are required to provide adequate information to understand the nature, amount, timing and uncertainty of reported revenues and revenues expected to be recognized. MPLX adopted the standard as of January 1, 2018 using the modified retrospective method by recognizing the cumulative effect of initially applying the new revenue standard as an adjustment to opening equity. The comparative information has not been restated and continues to be reported under the accounting standards in effect for those periods. See Note 19 for further details.

We also adopted the following standards during 2018, none of which had a material impact to our financial statements or financial statement disclosures:

ASU		Effective Date
2017-09	Stock Compensation—Scope of Modification Accounting	January 1, 2018
2017-05	Gains and Losses from the Derecognition of Nonfinancial Assets—Clarifying the	January 1, 2018
	Scope of Asset Derecognition Guidance	
2017-01	Business Combinations—Clarifying the Definition of a Business	January 1, 2018
2016-18	Statement of Cash Flows—Restricted Cash	January 1, 2018
2016-15	Statement of Cash Flows—Classification of Certain Cash Receipts and Cash	January 1, 2018
	Payments	
2016-01	Financial Instruments—Recognition and Measurement of Financial Assets and	January 1, 2018
	Liabilities	

Not Yet Adopted

ASU 2017-12, Derivatives and Hedging - Targeted Improvements to Accounting for Hedging Activities

In August 2017, the FASB issued an ASU to amend the hedge accounting rules to simplify the application of hedge accounting guidance and better portray the economic results of risk management activities in the financial statements. The guidance expands the ability to hedge nonfinancial and financial risk components, reduces complexity in fair value hedges of interest rate risk, eliminates the requirement to separately measure and report hedge ineffectiveness and eases certain hedge effectiveness assessment requirements. The guidance is effective beginning in 2019 with early adoption permitted. We do not expect the adoption of this ASU to have a material impact on our consolidated financial statements.

ASU 2017-04, Intangibles - Goodwill and Other - Simplifying the Test for Goodwill Impairment

In January 2017, the FASB issued an ASU which simplifies the subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test. Under the new guidance, the recognition of an impairment charge is calculated based on the amount by which the carrying amount exceeds the reporting unit's fair value, which could be different from the amount calculated under the current method using the implied fair value of the goodwill; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The guidance should be applied on a prospective basis, and is effective for annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017.

ASU 2016-13, Credit Losses - Measurement of Credit Losses on Financial Instruments

In June 2016, the FASB issued an ASU related to the accounting for credit losses on certain financial instruments. The guidance requires that for most financial assets, losses be based on an expected loss approach which includes estimates of losses over the life of exposure that considers historical, current and forecasted information. Expanded disclosures related to the methods used to estimate the losses as well as a specific disaggregation of balances for financial assets are also required. The change is effective for fiscal years beginning after December 15, 2019, and interim periods within those fiscal years, with early adoption permitted for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. MPLX does not expect application of this ASU to have a material impact on our consolidated financial statements.

ASU 2016-02, Leases and related updates

In February 2016, the FASB issued an ASU requiring lessees to record virtually all leases on their balance sheets. The ASU also requires expanded disclosures to help financial statement users better understand the amount,

timing and uncertainty of cash flows arising from leases. For lessors, this amended guidance modifies the classification criteria and the accounting for sales-type and direct financing leases. The guidance will be effective for fiscal years beginning after December 15, 2018, and interim periods within those years, with early adoption permitted. As of January 1, 2019, we have transitioned to the new guidance.

As part of implementing this standard, MPLX evaluated the impact to our financial statements, disclosures, internal controls and accounting policies. This evaluation process included reviewing all forms of leases, performing a completeness assessment over the lease population and analyzing the practical expedients in order to determine the best path of implementing changes to existing processes and controls. We have implemented a third-party supported lease accounting information system to account for our lease population in accordance with this new standard and established internal controls over the new system. We expect that adoption of the standard will result in the recognition of right-of-use assets and lease liabilities for operating leases in the range of \$450 million to \$550 million. The adoption of ASC 842 will not have a material impact on our consolidated statements of income or cash flows, except for the potential effects from lease modifications as discussed below.

In addition, based on the changes presented in the standard, MPLX, as a lessor, may be required to re-classify existing operating leases to sales-type leases upon modification and related reassessment of the leases. If such a modification were to occur, it may result in the de-recognition of existing assets, recognition of a receivable in the amount of the present value of fixed payments expected to be received by MPLX under the lease, and recognition of a corresponding gain or loss in the period of change. MPLX will evaluate the impact of a lease reassessment as modifications occur.

4. Acquisitions

Mt. Airy Terminal

On September 26, 2018, MPLX acquired an eastern U.S. Gulf Coast export terminal (the "Mt. Airy Terminal") from Pin Oak Holdings, LLC for total consideration of \$451 million. The terminal includes 4 million barrels of third-party leased storage capacity and a 120 mbpd dock. The Mt. Airy Terminal is located on the Mississippi River between New Orleans and Baton Rouge, is in close proximity to several Gulf Coast refineries including MPC's Garyville Refinery and is near numerous rail lines and pipelines. The Mt. Airy Terminal is accounted for within the L&S segment.

Based on the fair value estimates of assets acquired and liabilities assumed at the acquisition date, the purchase price was allocated as follows:

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(In millions)	September 26, 2018					
Receivables, net	\$	3				
Other current assets		1				
Property, plant and equipment, net		336				
Intangibles, net		9				
Goodwill		126				
Accounts payable		(17)				
Other current liabilities		(7)				
Net assets acquired	\$	451				

Goodwill represents the significant growth potential of the terminal due to the multiple pipelines and rail lines which cross the property, the terminal's position as an aggregation point for liquids growth in the region for both ocean-going export vessels and inland barges, the proximity of the terminal to MPC's Garyville refinery and other refineries in the region as well as the opportunity to expand and construct an additional dock at the site. All of the goodwill recognized related to this transaction is tax deductible.

The amount of revenue and income from operations associated with the acquisition of the Mt. Airy Terminal included on the Consolidated Statement of Income since the September 26, 2018 acquisition date was not material to the financial statements. Assuming the acquisition had occurred on January 1, 2017, the consolidated pro forma results would not have been materially different from the reported results.

Refining Logistics and Fuels Distribution Acquisition

On February 1, 2018, MPC and MPLX LP closed on an agreement for the dropdown of refining logistics assets and fuels distribution services to MPLX LP. MPC contributed these assets and services in exchange for \$4.1 billion in cash and a fixed number of MPLX LP common units and general partner units of 111,611,111 and 2,277,778, respectively. The fair value of the common and general partner units issued as of the acquisition date was \$4.3 billion based on the closing common unit price as of February 1, 2018, as recorded on the Consolidated Statements of Equity, for a total purchase price of \$8.4 billion. The equity issued consisted of: (i) 85,610,278 common units to MPLX GP LLC ("MPLX GP"), (ii) 18,176,666 common units to MPLX Logistics Holdings LLC ("MPLX Logistics") and (iii) 7,824,167 common units to MPLX Holdings Inc. ("MPLX Holdings"). MPLX also issued 2,277,778 general partner units to MPLX GP in order to maintain its two percent general partner interest ("GP Interest") in MPLX. MPC agreed to waive approximately one-third of the first quarter 2018 distributions on the common units issued in connection with this transaction. As a result of this waiver, MPC did not receive \$23.7 million of the distributions that would have otherwise accrued on such common units with respect to the first quarter 2018. Immediately following this transaction, the GP Interest was converted into a non-economic general partner interest as discussed in Note 8.

MPLX recorded this transaction on a historical basis as required for transactions between entities under common control. No effect was given to the prior periods as these entities were not considered businesses prior to the February 1, 2018 dropdown. In connection with the dropdown, approximately \$830 million of net property, plant and equipment was recorded in addition to \$85 million and \$130 million of goodwill allocated to MPLX Refining Logistics LLC ("Refining Logistics") and MPLX Fuels Distribution LLC ("Fuels Distribution"), respectively. Both the Refining Logistics assets and the Fuels Distribution services are accounted for within the L&S segment.

The Refining Logistics assets include 619 tanks with approximately 56 million barrels of storage capacity (crude, finished products and intermediates), 32 rail and truck racks, 18 docks, and gasoline blenders. These assets generate revenue through storage services agreements with MPC. Refining Logistics provides certain services to MPC related to the receipt, storage, throughput, custody and delivery of petroleum products in and through certain storage and logistical facilities and assets associated with MPC's refineries.

Fuels Distribution, which is a wholly owned subsidiary of MPLXT, generates revenue through a Fuels Distribution Services Agreement with MPC. Fuels Distribution is structured to provide a broad range of scheduling and marketing services as MPC's agent.

The amounts of revenue and income from operations associated with these investments included on the Consolidated Statements of Income, since the February 1, 2018 acquisition date, were as follows:

(In millions)		Ended December 31, 2	
Revenues and other income	•		1,359
Income from operations	\$,	874

Joint-Interest Acquisition

On September 1, 2017, MPLX entered into a Membership Interests and Shares Contributions Agreement with MPLX GP, MPLX Logistics, MPLX Holdings and MPC Investment LLC ("MPC Investment"), each a wholly-

owned subsidiary of MPC, whereby MPLX agreed to acquire certain ownership interests in joint venture entities indirectly held by MPC. Pursuant to the agreement, MPC Investment agreed to contribute: all of the membership interests of Lincoln Pipeline LLC, which holds a 35 percent interest in Illinois Extension; all of the membership interests of MPL Louisiana Holdings LLC, which holds a 41 percent interest in LOOP; a 59 percent interest in LOCAP; and a 25 percent interest in Explorer, through a series of intercompany contributions to MPLX for an agreed upon purchase price of approximately \$420 million in cash and equity consideration valued at approximately \$630 million, for total consideration of \$1.05 billion (collectively, the "Joint-Interest Acquisition"). The number of common units representing the equity consideration was then determined by dividing the contribution amount by the simple average of the ten-day trailing volume weighted average NYSE price of a common unit for the ten trading days ending at market close on August 31, 2017. The fair value of the common and general partner units issued was approximately \$653 million based on the closing common unit price as of September 1, 2017, as recorded on the Consolidated Statements of Equity, for a total purchase price of \$1.07 billion. The equity issued consisted of: (i) 13,719,017 common units to MPLX GP, (ii) 3,350,893 common units to MPLX Logistics and (iii) 1,441,224 common units to MPLX Holdings. MPLX also issued 377,778 general partner units to MPLX GP in order to maintain its two percent GP Interest in MPLX.

Illinois Extension operates the 168-mile, 24-inch diameter Southern Access Extension crude oil pipeline from Flanagan, Illinois to Patoka, Illinois, as well as additional tankage and two pump stations. LOOP owns and operates midstream crude oil infrastructure, including a deep-water oil port offshore of Louisiana, pipelines and onshore storage facilities. LOOP also manages the operations of LOCAP, an affiliate pipeline system. LOCAP owns and operates a crude oil pipeline and tank facility in St. James, Louisiana, that distributes oil received from LOOP's storage facilities and other connecting pipelines to nearby refineries and into the Mid-Continent region of the United States. Explorer owns and operates an approximate 1,830-mile common carrier pipeline that primarily transports gasoline, diesel, diluent and jet fuel from the Gulf Coast region to the Midwest United States. MPLX accounts for the Joint-Interest Acquisition entities as equity method investments within its L&S segment.

As a transfer between entities under common control, MPLX recorded the Joint-Interest Acquisition on its Consolidated Balance Sheets at MPC's historical basis, which included accumulated other comprehensive loss. MPLX recognizes an "Accumulated other comprehensive loss" on its Consolidated Balance Sheets relating to pension and other post-retirement benefits provided by the LOOP and Explorer joint-interests to their employees. MPLX LP is not a sponsor of these benefit plans.

Distributions of cash received from the entities and interests acquired in the Joint-Interest Acquisition related to periods prior to the acquisition were prorated on a daily basis with MPLX LP retaining the portion of distributions beginning on the closing date. All amounts distributed to MPLX LP related to periods before the acquisition have been paid to MPC. Additionally, MPLX LP agreed to pay MPC for any distributions of cash from LOOP related to the sale of LOOP's excess crude oil inventory. Because the future distributions or payments could not be reasonably quantified, a liability was not recorded in connection with the acquisition. MPLX LP subsequently received distributions related to the time period prior to the acquisition, which it remitted to MPC and recorded a corresponding decrease to the general partner's equity for \$32 million.

MPLX accounts for the interests acquired in the Joint-Interest Acquisition one month in arrears, which is the most recently available information. The amount of income associated with these investments included on the Consolidated Statements of Income under the caption "Income/(loss) from equity method investments" for the twelve months ended December 31, 2018 and December 31, 2017 totaled \$118 million and \$21 million, respectively. MPC agreed to waive approximately two-thirds of the third quarter 2017 distributions on the common units issued in connection with the Joint-Interest Acquisition. As a result of this waiver, MPC did not receive approximately two-thirds of the distributions or IDRs that would have otherwise accrued on such common units with respect to the third quarter 2017 distributions. The value of these waived distributions was \$10 million.

Acquisition of Hardin Street Transportation LLC, Woodhaven Cavern LLC and MPLX Terminals LLC

MPC contributed the assets of HST, WHC and MPLXT to newly created and wholly-owned subsidiaries and entered into commercial agreements related to services provided by these new entities to MPC on January 1, 2015 for HST and WHC and April 1, 2016 for MPLXT. Pursuant to a Membership Interests Contributions Agreement entered into on March 1, 2017 by MPLX with MPLX GP, MPLX Logistics, MPLX Holdings and MPC Investment (each a wholly-owned subsidiary of MPC), MPC Investment agreed to contribute the outstanding membership interests in HST, WHC and MPLXT through a series of intercompany contributions to MPLX for approximately \$1.5 billion in cash and equity consideration valued at approximately \$504 million. The number of common units representing the equity consideration was determined by dividing the contribution amount by the simple average of the ten-day trailing volume weighted average NYSE price of a common unit for the ten trading days ending at market close on February 28, 2017. The fair value of the common and general partner units issued was approximately \$503 million, and consisted of (i) 9,197,900 common units to MPLX GP, (ii) 2,630,427 common units to MPLX Logistics and (iii) 1,132,049 common units to MPLX Holdings, MPLX also issued 264,497 general partner units to MPLX GP in order to maintain its two percent GP Interest in MPLX. MPC agreed to waive two-thirds of the first quarter 2017 distributions on the common units issued in connection with the Transaction. As a result of this waiver, MPC did not receive two-thirds of the general partner distributions or IDRs that would have otherwise accrued on such common units with respect to the first quarter 2017 distributions. The value of these waived distributions was \$6 million.

HST owns and operates various private crude oil and refined product pipeline systems and associated storage tanks. As of the acquisition date, these pipeline systems consisted of 174 miles of crude oil pipelines and 430 miles of refined products pipelines. WHC owns and operates eight butane and propane storage caverns located in Michigan with approximately 1.8 million barrels of NGL storage capacity. As of the acquisition date, MPLXT owned and operated 59 terminals for the receipt, storage, blending, additization, handling and redelivery of refined petroleum products. Additionally, MPLXT operated one leased terminal and had partial ownership interest in two terminals. Collectively, these 62 terminals have a combined shell capacity of approximately 23.6 million barrels. The terminal facilities are located primarily in the Midwest, Gulf Coast and Southeast regions of the United States. MPLX accounts for these businesses within its L&S segment.

MPLX retrospectively adjusted the historical financial results for all periods to give effect to the acquisition of HST and WHC effective January 1, 2015, and the acquisition of MPLXT effective April 1, 2016, as required for transactions between entities under common control. Prior to these dates, these entities were not considered businesses and, therefore, there are no financial results from which to recast.

Acquisition of Ozark Pipeline

On March 1, 2017, MPLX acquired the Ozark pipeline from Enbridge Pipelines (Ozark) LLC for approximately \$219 million, including purchase price adjustments made in the second quarter of 2017. Based on the final fair value estimates of assets acquired and liabilities assumed at the acquisition date, the purchase price was primarily allocated to property, plant and equipment. The Ozark pipeline is a 433-mile, 22-inch crude oil pipeline originating in Cushing, Oklahoma, and terminating in Wood River, Illinois, capable of transporting approximately 230 mbpd. MPLX accounts for the Ozark pipeline within its L&S segment.

The amounts of revenue and income from operations associated with the acquisition included on the Consolidated Statements of Income, since the March 1, 2017 acquisition date are as follows:

(In millions)	_	Ended December 3 2017	31,
Revenues and other income		\$	64
Income from operations		\$	20

Twelve Months

Assuming the acquisition of the Ozark pipeline had occurred on January 1, 2016, the consolidated pro forma results would not have been materially different from reported results.

MarEn Bakken

On February 15, 2017, MPLX closed on a joint venture, MarEn Bakken Company, LLC ("MarEn Bakken"), with Enbridge Energy Partners L.P. in which MPLX LP acquired a partial, indirect interest in the Dakota Access Pipeline and Energy Transfer Crude Oil Company Pipeline projects, collectively referred to as the Bakken Pipeline system, from Energy Transfer Partners, L.P. and Sunoco Logistics Partners, L.P. The Bakken Pipeline system is capable of transporting more than 520 mbpd of crude oil from the Bakken/Three Forks production area in North Dakota to the Midwest through Patoka, Illinois and ultimately to the Gulf Coast. MPLX contributed \$500 million of the \$2.0 billion purchase price paid by MarEn Bakken to acquire a 37 percent indirect interest in the Bakken Pipeline system. MPLX holds, through a subsidiary, a 25 percent interest in MarEn Bakken, which equates to an approximate 9 percent indirect interest in the Bakken Pipeline system.

MPLX accounts for its investment in MarEn Bakken as an equity method investment and bases the equity method accounting for this joint venture one month in arrears which is the most recently available information. The amount of income or loss associated with these investments included on the Consolidated Statements of Income under the caption "Income/(loss) from equity method investments" for the twelve months ended December 31, 2018 and December 31, 2017 totaled \$48 million and \$15 million, respectively. In connection with MPLX's acquisition of a partial, indirect equity interest in the Bakken Pipeline system, MPC agreed to waive its right to receive incentive distributions of \$1.6 million per quarter for twelve consecutive quarters, beginning with distributions declared in the first quarter of 2017 and paid to MPC in the second quarter of 2017, which was prorated to \$0.8 million from the acquisition date. This waiver is no longer applicable as a result of the conversion of the GP Interest to a non-economic general partner interest as discussed in Note 8.

Acquisition of Hardin Street Marine LLC

On March 14, 2016, MPLX entered into a Membership Interests Contribution Agreement with MPLX GP, MPLX Logistics and MPC Investment (each a wholly-owned subsidiary of MPC), related to the acquisition of HSM, MPC's inland marine business, from MPC. Pursuant to the agreement, the transaction was valued at \$600 million, consisting of a fixed number of common units and general partner units of 22,534,002 and 459,878, respectively. The general partner units maintained MPC's two percent GP Interest in MPLX. The acquisition closed on March 31, 2016 and the fair value of the common units and general partner units issued was \$669 million and \$14 million, respectively. MPC agreed to waive distributions in the first quarter of 2016 on common units issued in connection with this transaction. As a result of this waiver, MPC did not receive general partner distributions or IDRs that would have otherwise accrued on such common units with respect to the first quarter 2016 distributions. The value of these waived distributions was \$15 million.

The inland marine business, comprised of 18 tow boats and 219 owned and leased barges as of the acquisition date, which transport light products, heavy oils, crude oil, renewable fuels, chemicals and feedstocks in the Midwest and Gulf Coast regions of the United States, accounted for nearly 60 percent of the total volumes MPC shipped by inland marine vessels as of March 31, 2016. MPLX accounts for HSM within its L&S segment.

5. Investments and Noncontrolling Interests

The following table presents MPLX's equity method investments at the dates indicated:

Ownership as of December 31,		Carrying value at December 31,					
(In millions, except ownership percentages)	2018		2018		2017		
Explorer	25%	\$	90	\$	89		
Illinois Extension Pipeline	35%		275		284		
LOCAP	59%		27		24		
LOOP	41%		226		225		
MarEn Bakken	25%		498		520		
Centrahoma Processing LLC	40%		160		121		
MarkWest EMG Jefferson Dry Gas Gathering Company, L.L.C.	67%		236		164		
MarkWest Utica EMG, L.L.C.	56%		2,039		2,139		
Sherwood Midstream LLC	50%		366		236		
Sherwood Midstream Holdings LLC	60%		157		165		
Other			100		43		
Total		\$	4,174	\$	4,010		

Summarized financial information for MPLX's equity method investments for the years ended December 31, 2018, 2017 and 2016 is as follows:

	December 31, 2018										
(In millions)		MarkWest Utica EMG, L.L.C.		Other VIEs		Non-VIEs		Total			
Revenues and other income	\$	238	\$	234	\$	1,364	\$	1,836			
Costs and expenses		184		95		709		988			
Income from operations		54		139		655		848			
Net income		53		139		584		776			
(Loss)/income from equity method investments ⁽¹⁾	\$	(10)	\$	74	\$	176	\$	240			
	December 31, 2017										
(In millions)		Vest Utica G, L.L.C.	Othe	er VIEs	No	n-VIEs		Total			
Revenues and other income	\$	187	\$	86	\$	954	\$	1,227			
Costs and expenses		97		42		520		659			
Income from operations		90		44		434		568			
Net income		90		43		345		478			
Income from equity method investments ⁽¹⁾	\$	10	\$	20	\$	48	\$	78			
	December 31, 2016										
(In millions)		Vest Utica G, L.L.C.	Other VIEs(2)		Non-VIEs			Total			
Revenues and other income	\$	216	\$	18	\$	148	\$	382			
Costs and expenses		100		111		117		328			
Income/(loss) from operations		116		(93)		31		54			
Net income/(loss)		114		(93)		31		52			
Income/(loss) from equity method investments ⁽¹⁾	\$	8	\$	(89)	\$	7	\$	(74)			

^{(1) &}quot;Income/(loss) from equity method investments" includes the impact of any basis differential amortization or accretion.

⁽²⁾ Includes an impairment charge of \$89 million for the year ended December 31, 2016 related to MPLX's investment in Ohio Condensate Company, L.L.C., which does not appear separately in this table.

Summarized balance sheet information for MPLX's equity method investments as of December 31, 2018 and 2017 is as follows:

	December 31, 2018										
(In millions)		MarkWest Utica EMG, L.L.C. ⁽¹⁾ Other VIEs Non-VII				n-VIEs	s Total				
Current assets	\$	82	\$	153	\$	379	\$	614			
Noncurrent assets		1,939		1,596		4,715		8,250			
Current liabilities		28		127		246		401			
Noncurrent liabilities	\$	3	\$	186	\$	841	\$	1,030			
	December 31, 2017										
(In millions)		Vest Utica L.L.C. ⁽¹⁾	Oth	ner VIEs	Non-VIEs			Total			
Current assets	\$	65	\$	46	\$	399	\$	510			
Noncurrent assets		2,077		930		4,624		7,631			
Current liabilities		39		44		220		303			
Noncurrent liabilities	\$	3	\$	11	\$	904	\$	918			

⁽¹⁾ MarkWest Utica EMG, L.L.C ("MarkWest Utica EMG"), noncurrent assets include its investment in its subsidiary Ohio Gathering Company, L.L.C. ("Ohio Gathering"), which does not appear elsewhere in this table. The investment was \$750 million and \$790 million as of December 31, 2018 and 2017, respectively.

As of December 31, 2018 and 2017, the carrying value of MPLX's equity method investments exceeded the underlying net assets of its investees by \$1.0 billion for the G&P segment. As of December 31, 2018 and 2017, the carrying value of MPLX's equity method investments in the L&S segment exceeded the underlying net assets of its investees by \$114 million and \$118 million, respectively. This basis difference is being amortized into net income over the remaining estimated useful lives of the underlying net assets, except for \$459 million and \$39 million of excess related to goodwill for the G&P and L&S segments, respectively.

MarkWest Utica EMG

Effective January 1, 2012, MarkWest Utica Operating Company, L.L.C. ("Utica Operating"), a wholly-owned and consolidated subsidiary of MPLX, and EMG Utica, LLC ("EMG Utica" and together with Utica Operating, the "Members") executed agreements to form a joint venture, MarkWest Utica EMG, to develop significant natural gas gathering, processing and NGL fractionation, transportation and marketing infrastructure in eastern Ohio. The related limited liability company agreement has been amended from time to time (the limited liability company agreement currently in effect is referred to as the "Amended LLC Agreement"). The aggregate funding commitment of EMG Utica was \$950 million. Thereafter, Utica Operating was required to fund, as needed, 100 percent of future capital for MarkWest Utica EMG until the aggregate capital that had been contributed by the Members reached \$2.0 billion, which occurred prior to the MarkWest Merger. Until such time as the investment balances of Utica Operating and EMG Utica are in the ratio of 70 percent and 30 percent, respectively (such time being referred to as the "Second Equalization Date"), EMG Utica will have the right, but not the obligation, to fund up to ten percent of each capital call for MarkWest Utica EMG, and Utica Operating will be required to fund all remaining capital not elected to be funded by EMG Utica. After the Second Equalization Date, Utica Operating and EMG Utica will have the right, but not the obligation, to fund their pro rata portion (based on their respective investment balances) of any additional required capital and may also fund additional capital that the other party elects not to fund. As of December 31, 2018, EMG Utica has contributed approximately \$1.2 billion and Utica Operating has contributed approximately \$1.5 billion to MarkWest Utica EMG.

Under the Amended LLC Agreement, prior to December 31, 2016, EMG Utica's investment balance was increased by a quarterly special non-cash allocation of income ("Preference Amount") calculated based upon the amount of capital contributed by EMG Utica in excess of \$500 million. After December 31, 2016, no Preference Amount will accrue to EMG Utica's investment balance. EMG Utica received a Preference Amount totaling approximately \$16 million for the year ended December 31, 2016.

Under the Amended LLC Agreement, after December 31, 2016, cash generated by MarkWest Utica EMG that is available for distribution will be allocated to the Members in proportion to their respective investment balances. As of December 31, 2018, Utica Operating's investment balance in MarkWest Utica EMG was approximately 56 percent.

MarkWest Utica EMG is deemed to be a VIE. Utica Operating is not deemed to be the primary beneficiary, due to EMG Utica's voting rights on significant matters. MPLX's maximum exposure to loss as a result of its involvement with MarkWest Utica EMG includes its equity investment, any additional capital contribution commitments and any operating expenses incurred by the subsidiary operator in excess of its compensation received for the performance of the operating services. MPLX did not provide any financial support to MarkWest Utica EMG that it was not contractually obligated to provide during the years ended December 31, 2018, 2017 and 2016. MPLX receives management fee revenue for engineering and construction and administrative services for operating MarkWest Utica EMG, and is also reimbursed for personnel services ("Operational Service revenue"). Operational Service revenue is reported as "Other income—related parties" on the Consolidated Statements of Income. The amount of Operational Service revenue related to MarkWest Utica EMG for the years ended December 31, 2018, 2017 and 2016 totaled \$17 million, \$17 million and \$16 million, respectively.

Ohio Gathering

Ohio Gathering is a subsidiary of MarkWest Utica EMG and is engaged in providing natural gas gathering services in the Utica Shale in eastern Ohio. Ohio Gathering is a joint venture between MarkWest Utica EMG and Summit Midstream Partners, LLC. As of December 31, 2018, MPLX had an approximate 34 percent indirect ownership interest in Ohio Gathering. As Ohio Gathering is a subsidiary of MarkWest Utica EMG, which is accounted for as an equity method investment, MPLX reports its portion of Ohio Gathering's net assets as a component of its investment in MarkWest Utica EMG. MPLX receives Operational Service revenue for operating Ohio Gathering which is reported as "Other income-related parties" on the Consolidated Statements of Income. The amount of Operational Service revenue related to Ohio Gathering for the years ended December 31, 2018, 2017 and 2016 totaled \$16 million, \$16 million and \$15 million, respectively.

Sherwood Midstream

Effective January 1, 2017, MarkWest Liberty Midstream & Resources, L.L.C. ("MarkWest Liberty Midstream"), a wholly-owned and consolidated subsidiary of MPLX LP, and Antero Midstream Partners LP ("Antero Midstream") formed a joint venture, Sherwood Midstream LLC ("Sherwood Midstream"), to support Antero Resources Corporation's ("Antero Resources") development in the Marcellus Shale. MarkWest Liberty Midstream has a 50 percent ownership interest in Sherwood Midstream. Pursuant to the terms of the related limited liability company agreement (the "LLC Agreement"), MarkWest Liberty Midstream contributed assets then under construction with a fair value of approximately \$134 million and cash of approximately \$20 million. Antero Midstream made an initial capital contribution of approximately \$154 million.

Also effective January 1, 2017, MarkWest Liberty Midstream converted all of its ownership interests in MarkWest Ohio Fractionation Company, L.L.C. ("Ohio Fractionation"), a previously wholly-owned subsidiary, to Class A Interests and amended its LLC Agreement to create Class B-3 Interests, which were sold to Sherwood Midstream for \$126 million in cash. The Class B-3 Interests provide Sherwood Midstream with the right to fractionation revenue and the obligation to pay expenses related to 20 mbpd of capacity in the Hopedale 3 fractionator. Sherwood Midstream accounts for its investment in Ohio Fractionation, which is a VIE, as an equity

method investment as Sherwood Midstream does not control Ohio Fractionation. MarkWest Liberty Midstream has been deemed to be the primary beneficiary of Ohio Fractionation because it has control over the decisions that could significantly impact its financial performance, and as a result, consolidates Ohio Fractionation. The carrying amounts of assets and liabilities included on MPLX's Consolidated Balance Sheets pertaining to Ohio Fractionation at December 31, 2018, were current assets of \$132 million, non-current assets of \$550 million, current liabilities of \$75 million and \$1 million of non-current liabilities. The creditors of Ohio Fractionation do not have recourse to MPLX LP's general credit through guarantees or other financial arrangements. The assets of Ohio Fractionation are the property of Ohio Fractionation and cannot be used to satisfy the obligations of MPLX LP. Sherwood Midstream's interests are reflected in "Net income attributable to noncontrolling interests" on the Consolidated Statements of Income and "Noncontrolling interests" on the Consolidated Balance Sheets.

Under the LLC Agreement, cash generated by Sherwood Midstream that is available for distribution will be allocated to the members in proportion to their respective investment balances.

Sherwood Midstream is deemed to be a VIE. MarkWest Liberty Midstream is not deemed to be the primary beneficiary, due to Antero Midstream's voting rights on significant matters. MPLX's maximum exposure to loss as a result of its involvement with Sherwood Midstream includes its equity investment, any additional capital contribution commitments and any operating expenses incurred by the subsidiary operator in excess of its compensation received for the performance of the operating services. MPLX did not provide any financial support to Sherwood Midstream that it was not contractually obligated to provide during the years ended December 31, 2018 and 2017. MPLX receives Operational Service revenue for operating Sherwood Midstream. The amount of Operational Service revenue related to Sherwood Midstream for the years ended December 31, 2018 and 2017 totaled approximately \$12 million and \$8 million, respectively, and is reported as "Other incomerelated parties" on the Consolidated Statements of Income.

Sherwood Midstream Holdings

Effective January 1, 2017, MarkWest Liberty Midstream and Sherwood Midstream formed a joint venture, Sherwood Midstream Holdings LLC ("Sherwood Midstream Holdings"), for the purpose of owning, operating and maintaining all of the shared assets that support the operations of the gas plants and other assets owned by Sherwood Midstream and the gas plants and de-ethanization facilities owned by MarkWest Liberty Midstream. MarkWest Liberty Midstream initially contributed certain real property, equipment and facilities with a fair value of approximately \$209 million to Sherwood Midstream Holdings in exchange for a 79 percent initial ownership interest. Sherwood Midstream contributed cash of approximately \$44 million to Sherwood Midstream Holdings in exchange for a 21 percent ownership interest. During the second quarter ended June 30, 2017, true-ups to the initial contributions were finalized. MarkWest Liberty Midstream contributed certain additional real property, equipment and facilities with a fair value of approximately \$10 million to Sherwood Midstream Holdings and Sherwood Midstream contributed cash of approximately \$4 million to Sherwood Midstream Holdings. Collectively, the real property, equipment, facilities and cash initially contributed, or that may be subsequently constructed by or contributed, to Sherwood Midstream Holdings are referred to as the "Shared Assets." The net book value of the contributed assets was approximately \$203 million. The contribution was determined to be an in-substance sale of real estate. As such, MPLX only recognized a gain for the portion attributable to Antero Midstream's indirect interest of approximately \$2 million, included in "Other income" on the Consolidated Statements of Income. MarkWest Liberty Midstream's portion of the gain attributable to its direct and indirect interests of approximately \$14 million is included in its investment in Sherwood Midstream Holdings and is reported under the caption "Equity method investments" on the Consolidated Balance Sheets. In connection with the initial contributions, MarkWest Liberty Midstream received a special distribution of approximately \$45 million. During the year ended December 31, 2018, MarkWest Liberty Midstream sold to Sherwood Midstream six percent of its equity ownership in Sherwood Midstream Holdings for \$15 million.

MarkWest Liberty Midstream's and Sherwood Midstream's ownership interests in Sherwood Midstream Holdings will fluctuate over time. As new Shared Assets are constructed, the members will make additional

capital contributions to Sherwood Midstream Holdings. The amount that each member must contribute will be based on the expected utilization of the Shared Assets, as defined in the LLC Agreement. Pursuant to the terms of the LLC Agreement, MarkWest Liberty Midstream will serve as the operator for Sherwood Midstream Holdings.

MPLX accounts for Sherwood Midstream Holdings, which is a VIE, as an equity method investment as Sherwood Midstream is considered to be the general partner and controls all decisions. MPLX's maximum exposure to loss as a result of its involvement with Sherwood Midstream Holdings includes its equity investment, any additional capital contribution commitments and any operating expenses incurred by the subsidiary operator in excess of its compensation received for the performance of operating services. MPLX did not provide any financial support to Sherwood Midstream Holdings that it was not contractually obligated to provide during the years ended December 31, 2018 and 2017.

Sherwood Midstream has been deemed the primary beneficiary of Sherwood Midstream Holdings due to its controlling financial interest through its authority to manage the joint venture. As a result, Sherwood Midstream consolidates Sherwood Midstream Holdings. Therefore, MPLX also reports its portion of Sherwood Midstream Holdings' net assets as a component of its investment in Sherwood Midstream. As of December 31, 2018, MPLX has a 20.2 percent indirect ownership interest in Sherwood Midstream Holdings through Sherwood Midstream.

6. Related Party Agreements and Transactions

MPLX's material related parties include:

- MPC, which refines, markets and transports crude oil and petroleum products, primarily in the Midwest, Gulf Coast, East Coast and Southeast regions of the United States.
- MarkWest Utica EMG, in which MPLX LP has a 56 percent interest as of December 31, 2018. MarkWest
 Utica EMG is engaged in natural gas processing and NGL fractionation, transportation and marketing in
 Ohio
- Ohio Gathering, in which MPLX LP has a 34 percent indirect interest as of December 31, 2018. Ohio
 Gathering is a subsidiary of MarkWest Utica EMG providing natural gas gathering service in the Utica
 Shale region of eastern Ohio.
- Sherwood Midstream, in which MPLX LP has a 50 percent interest as of December 31, 2018. Sherwood
 Midstream supports the development of Antero Resources' Marcellus Shale acreage in the rich-gas corridor
 of West Virginia.
- Sherwood Midstream Holdings, in which MPLX LP has an 80 percent total direct and indirect interest as of
 December 31, 2018. Sherwood Midstream Holdings owns certain infrastructure at the Sherwood Complex
 that is shared by and supports the operation of both the Sherwood Midstream and MPLX gas processing
 plants and de-ethanization facilities.
- MarkWest EMG Jefferson Dry Gas Gathering Company, L.L.C. ("Jefferson Dry Gas"), in which MPLX LP has a 67 percent interest as of December 31, 2018. Jefferson Dry Gas provides natural dry gas gathering and related services in the Utica Shale region of Ohio.

Commercial Agreements

MPLX has various long-term, fee-based commercial agreements with MPC. Under these agreements, MPLX provides transportation, terminal, fuels distribution, marketing and storage services to MPC. MPC has committed to provide MPLX with minimum quarterly throughput volumes on crude oil and refined products systems in addition to fees for storage capacity. MPC has also committed to provide a fixed fee for 100 percent of available capacity for boats, barges and third-party chartered equipment under the marine transportation service agreement.

The commercial agreements with MPC include:

- Fuels distribution services agreement—Fuels Distribution is a party to a services agreement with MPC in connection with the dropdown of the fuels distribution services. Under this agreement, Fuels Distribution provides services related to the scheduling and marketing of certain petroleum products to MPC. Fuels Distribution does not provide the same services to third parties without the prior written consent of MPC. This agreement has an initial term of 10 years, subject to a five-year renewal period under terms to be renegotiated at that time.
 - Under the Fuels Distribution Services Agreement, MPC pays MPLX a tiered monthly fee-based on the volume of MPC's products sold by MPLX each month, subject to a maximum annual volume. MPLX has agreed to use commercially reasonable efforts to sell not less than a minimum quarterly volume of MPC's products during each calendar quarter. If MPLX sells less than the minimum quarterly volume of MPC's products during any calendar quarter despite its commercially reasonable efforts, MPC will pay MPLX a deficiency payment equal to the volume deficiency multiplied by the applicable tiered fee. The dollar amount of actual sales volume of MPC's products that exceeds the minimum quarterly volume (an "Excess Sale") for a particular quarter will be applied as a credit, on a first-in-first-out basis, against any future deficiency payment owed by MPC to MPLX during the four calendar quarters immediately following the calendar quarter in which the Excess Sale occurs.
- Transportation services agreements—MPLX has various separate transportation services agreements with
 terms ranging from five to 15 years, under which MPC pays MPLX fees for transporting crude oil and
 refined products on various of MPLX's crude oil and refined product pipelines. MPLX also has a five-year
 agreement under which MPC pays MPLX fees for handling crude oil and products at MPLX's Wood River,
 Illinois barge dock, and a six-year transportation services agreement under which MPC pays MPLX fees for
 providing marine transportation of crude oil, feedstocks and refined petroleum products, and related
 services.
 - All of the transportation services agreements include automatic renewal terms ranging from two to five years, unless terminated by either party. Under the terms of these agreements, with the exception of the marine agreement, if MPC fails to transport its minimum throughput volumes during any quarter, then MPC will pay MPLX a deficiency payment equal to the volume of the deficiency multiplied by the tariff rate then in effect (the "Quarterly Deficiency Payment"). The amount of any Quarterly Deficiency Payment paid by MPC may be applied as a credit for any volumes transported on the applicable pipeline in excess of MPC's minimum volume commitment during any of the succeeding four quarters, or eight quarters in the case of the transportation services agreements covering the Wood River to Patoka crude pipeline and the Wood River barge dock, after which time any unused credits will expire. Upon the expiration or termination of a transportation services agreement, MPC will have the opportunity to apply any such remaining credit amounts until the completion of any such four-quarter or eight-quarter period, as applicable. Any such remaining credits may be used against any volumes shipped by MPC on the applicable pipeline, without regard to any minimum volume commitment that may have been in place during the term of the agreement.
- Storage services agreements—MPLX has three storage services agreements, with 10-year, 10-year, and 17-year terms, under which MPC pays MPLX fees for providing storage services at MPLX's Neal, West Virginia butane cavern; Robinson, Illinois butane cavern; and Woodhaven, Michigan butane and propane caverns, respectively. MPLX has various separate three-year storage services agreements under which MPC pays MPLX fees for providing storage services at MPLX's tank farms, and various separate three-year storage services agreements under which MPC pays MPLX fees for providing storage services at MPLX's storage tanks associated with MPLX's crude oil and refined product pipelines. MPLX also has various separate storage services agreements with each of MPC's refineries under which MPLX provides certain services exclusively to MPC related to the receipt, storage, throughput, custody and delivery of petroleum products in and through certain storage and logistical facilities and assets associated with MPC's refineries. These agreements have initial terms of 10 years.

MPLX's cavern storage services agreements with MPC contain various automatic renewal terms ranging from zero to 10 years. MPLX's tank farm storage services agreements with MPC automatically renew for additional one-year terms unless terminated by either party. Under the terms of these agreements, MPLX is obligated to make available to MPC, on a firm basis, the available storage capacity at MPLX LP's tank farms and caverns. MPC pays MPLX a per-barrel fee for such storage capacity, regardless of whether MPC fully utilizes the available capacity. MPLX's refinery storage services agreements with MPC are subject to five-year renewal periods under terms to be renegotiated at that time. MPC pays MPLX monthly fees for refinery storage and logistical services calculated as set forth in the agreements. The refinery storage and logistical facilities subject to the agreements are to be allocated exclusively to MPC for the term of the agreements.

• Terminal services agreement—MPLX has a 10-year terminal services agreement under which MPC pays MPLX fees for terminal storage for refined petroleum products.

The terminal services agreement with MPC includes automatic renewal terms ranging from two to five years, unless terminated by either party. Under the terms of the agreement, MPC pays MPLX monthly based on contractual fees relating to MPC product deliveries as well as any viscosity surcharges, loading, handling, transfers or other related charges. If MPC fails to meet its quarterly minimum volume throughput commitments, MPC will pay a deficiency payment equal to the volume of the deficiency multiplied by the rate then in effect. If the average daily capacity of a terminal falls below the level of MPC's commitment during a quarter, depending on the cause of the reduction in capacity, MPC's throughput commitment will be reduced to equal the average daily capacity available during such quarter.

Operating Agreements

MPLX operates various pipelines owned by MPC under operating services agreements. Under these operating services agreements, MPLX receives an operating fee for operating the assets and is reimbursed for all direct and indirect costs associated with operating the assets. Most of these agreements are indexed for inflation. These agreements range from one to five years in length and automatically renew unless terminated by either party.

Co-location services agreements

MPLX is party to co-location services agreements with each of MPC's refineries in connection with the dropdown of the refining logistics assets. Under these agreements, MPC provides management, operational and other services to the subsidiaries of Refining Logistics. Refining Logistics pays MPC monthly fixed fees and direct reimbursements for such services calculated as set forth in the agreements. These agreements have initial terms of 50 years.

Ground lease agreements

MPLX is party to ground lease agreements with each of MPC's refineries in connection with the dropdown of the Refining Logistics assets. Under these agreements, MPLX is the lessor of certain sections of property which contain facilities owned by Refining Logistics and are within the premises of MPC's refineries. Refining Logistics pays MPC monthly fixed fees under these ground leases. These agreements have initial terms of 50 years.

Management Services Agreement

MPLX, through its subsidiary, HSM, has a management services agreement with MPC under which it provides management services to assist MPC in the oversight and management of the marine business. HSM receives a fixed annual fee for providing the required management services. This fee is adjusted annually on the anniversary of the contract for inflation and any changes in the scope of the management services provided. This agreement is set to expire on January 1, 2021 and automatically renews for two additional renewal terms of five years each unless terminated by either party.

Omnibus Agreement

MPLX has an omnibus agreement with MPC that addresses its payment of a fixed annual fee to MPC for the provision of executive management services by certain executive officers of the general partner and MPLX's reimbursement of MPC for the provision of certain general and administrative services to it. It also provides for MPC's indemnification of MPLX for certain matters, including environmental, title and tax matters; as well as our indemnification of MPC for certain matters under this agreement.

Employee Services Agreements

MPLX has various employee services agreements with MPC under which MPLX reimburses MPC for employee benefit expenses, along with the provision of operational and management services in support of both our L&S and G&P segments' operations.

Loan Agreement

MPLX is party to a loan agreement with MPC Investment (the "MPC Loan Agreement"). Under the terms of the agreement, MPC Investment makes a loan or loans to MPLX on a revolving basis as requested by MPLX and as agreed to by MPC Investment. On April 27, 2018, MPLX and MPC Investment entered into an amendment to the MPC Loan Agreement to increase the borrowing capacity under the MPC Loan Agreement from \$500 million to \$1 billion in aggregate principal amount of all loans outstanding at any one time. The entire unpaid principal amount of the loan, together with all accrued and unpaid interest and other amounts (if any), shall become due and payable on December 4, 2020. MPC Investment may demand payment of all or any portion of the outstanding principal amount of the loan, together with all accrued and unpaid interest and other amounts (if any), at any time prior to December 4, 2020. Borrowings under the loan will bear interest at LIBOR plus 1.50 percent.

During 2018, MPLX borrowed \$4.0 billion and repaid \$4.3 billion, resulting in no outstanding balance at December 31, 2018. During 2017, MPLX borrowed \$2.4 billion and repaid \$2.0 billion, resulting in \$386 million outstanding balance at December 31, 2017, which is included in "Payables—related parties" on the Consolidated Balance Sheets. Borrowings were at an average interest rate of 3.473 percent and 2.777 percent for 2018 and 2017, respectively.

Related Party Transactions

Related party sales to MPC consisted of crude oil and refined products pipeline transportation services based on tariff rates, storage, terminal and fuels distribution services based on contracted rates; and marine transportation services. Related party sales to MPC also consist of revenue related to volume deficiency credits.

Revenue received from related parties related to service, rental, and product sales were as follows:

(In millions)	20	2018		2017		2016
Service revenue MPC	\$	2,159	\$	1,082	\$	936
Rental income MPC		718		279		235
Product sales (1) MPC	\$	49	\$	8	\$	11

⁽¹⁾ There were additional product sales to MPC that net to zero within the consolidated financial statements as the transactions are recorded net due to the terms of the agreements under which such product was sold. For 2018, 2017, and 2016, these sales totaled \$440 million, \$254 million and \$46 million, respectively.

MPLX has operating agreements with MPC under which it receives a fee for operating MPC's retained pipeline assets, a fixed annual fee for providing oversight and management services required to run the marine business and is also reimbursed for personnel services. MPLX also receives management fee revenue for engineering, construction and administrative services for operating certain of its equity method investments. The revenue received from these related parties, included in "Other income—related parties" on the Consolidated Statements of Income, was as follows:

(In millions)	2018		2017		2016	
MPC	\$	41	\$	40	\$	45
MarkWest Utica EMG		17		17		16
Ohio Gathering		16		16		15
Jefferson Dry Gas		6		6		3
Sherwood Midstream		12		8		_
Other		7		5		7
Total	\$	99	\$	92	\$	86

MPC provides executive management services and certain general and administrative services to MPLX under the terms of an omnibus agreement. Expenses incurred under this agreement are shown in the table below by the income statement line where they were recorded. Charges for services included in "Purchases—related parties" primarily relate to services that support MPLX's operations and maintenance activities, as well as compensation expenses. Charges for services included in "General and administrative expenses" primarily relate to services that support MPLX's executive management, accounting and human resources activities. These charges were as follows:

(In millions)	2018		2017		2016	
Rental cost of sales—related parties	\$	2	\$	1	\$	1
Purchases—related parties		164		67		39
General and administrative expenses		68		37		45
Total	\$	234	\$	105	\$	85

MPLX obtains employee services from MPC under employee services agreements. Expenses incurred under these agreements are shown in the table below by the income statement line where they were recorded. The costs of personnel directly involved in or supporting operations and maintenance activities related to rental services are classified as "Rental cost of sales—related parties." The costs of personnel directly involved in or supporting operations and maintenance activities related to other services are classified as "Purchases—related parties." The costs of personnel involved in executive management, accounting and human resources activities are classified as "General and administrative expenses" on the Consolidated Statements of Income. These charges were as follows:

(In millions)	2018		2017	2016		
Rental cost of sales—related parties	\$	3	\$ 1	\$	_	
Purchases—related parties		528	385		349	
General and administrative expenses		109	101		100	
Total	\$	640	\$ 487	\$	449	

Also under terms of the omnibus and employee services agreements, some service costs related to engineering services are associated with assets under construction. These costs added to "Property, plant and equipment, net" were as follows:

(In millions)	201	.8	2017	2016
MPC	\$	151 \$	42 \$	47

Purchases of products from MPC are classified as "Purchases—related parties." These purchases include product purchases, payments made to MPC in its capacity as general contractor to MPLX, and certain rent and lease agreements. These purchases were as follows:

(In millions)	20	18	2017		 2016
MPC	\$	168	\$	3	\$

Receivables from related parties were as follows:

	Decemb	oer 31	,
(In millions)	2018		2017
MPC	\$ 281	\$	153
Other	 8		7
Total	\$ 289	\$	160

Long-term receivables with related parties, which includes straight-line rental income, were as follows:

		December 3	1,
(In millions)	201	18	2017
MPC	\$	24 \$	20

Payables to related parties were as follows:

	December 31,							
(In millions)	2018			2017				
$MPC^{(1)}$	\$	131	\$	470				
MarkWest Utica EMG		51		29				
Ohio Gathering		5		8				
Sherwood Midstream		16		8				
Other				1				
Total	\$	203	\$	516				

Balance includes \$386 million related to the MPC Loan Agreement as of December 31, 2017. There was no outstanding balance on the MPC Loan Agreement as of December 31, 2018.

"Other current assets" included \$1 million and \$8 million of related party prepaid insurance as of December 31, 2018 and December 31, 2017, respectively.

From time to time, MPLX may also sell to or purchase from related parties assets and inventory at the lesser of average unit cost or net realizable value. Sales to related parties during the years ended December 31, 2018 and 2017 were \$5 million and \$11 million, respectively. Purchases from related parties during the years ended December 31, 2018 and 2017 were approximately \$8 million and \$44 million, respectively.

During 2018 and 2017, MPC did not ship its minimum committed volumes on certain pipelines. Under MPLX's pipeline transportation services agreements, if MPC fails to transport its minimum throughput volumes during any quarter, then MPC will pay MPLX a deficiency payment equal to the volume of the deficiency multiplied by the tariff rate then in effect. The deficiency amounts are recorded as "Deferred revenue-related parties." MPC may then apply the amount of any such deficiency payments as a credit for volumes transported on the applicable pipeline in excess of its minimum volume commitment during the following four or eight quarters under the terms of the applicable transportation services agreement. MPLX recognizes related party revenues for the

deficiency payments when credits are used for volumes transported in excess of minimum quarterly volume commitments, when it becomes impossible to physically transport volumes necessary to utilize the credits or upon the expiration of the credits. The use or expiration of the credits is a decrease in "Deferred revenue-related parties." In addition, capital projects MPLX is undertaking at the request of MPC are reimbursed in cash and recognized in income over the remaining term of the applicable agreements. The "Deferred revenue-related parties" balance associated with the minimum volume deficiencies and project reimbursements were as follows:

	December 31,							
(In millions)	20	018	20)17				
Minimum volume deficiencies—MPC	\$	44	\$	53				
Project reimbursements—MPC		50		33				
Total	\$	94	\$	86				

December 31

7. Net Income/(Loss) Per Limited Partner Unit

Net income/(loss) per unit applicable to common limited partner units is computed by dividing net income/(loss) attributable to MPLX LP less income/(loss) allocated to participating securities by the weighted average number of common units outstanding. The classes of participating securities include common units, certain equity-based compensation awards, Series A Convertible preferred units; and prior to 2018, general partner units and IDRs.

The HSM, HST, WHC and MPLXT acquisitions were transfers between entities under common control as discussed in Note 4. As entities under common control with MPC, prior periods were retrospectively adjusted to furnish comparative information. Accordingly, the prior period earnings have been allocated to the general partner and do not affect the net income/(loss) per unit calculation. The earnings for the entities acquired under common control will be included in the net income/(loss) per unit calculation prospectively as described above.

In 2018, MPLX had dilutive potential common units consisting of certain equity-based compensation awards. In 2017 and 2016, MPLX had dilutive potential common units consisting of certain equity-based compensation awards and Class B units. Potential common units omitted from the diluted earnings per unit calculation for the years ended December 31, 2018, 2017 and 2016 were less than 1 million.

(In millions)	2018		2018		2018		2017		2016	
Net income attributable to MPLX LP	\$	1,818	\$	794	\$	233				
Less: Limited partners' distributions declared on preferred units(1)		75		65		41				
General partner's distributions declared (includes IDRs)(1)(2)		_		328		205				
Limited partners' distributions declared on common units										
(including common units of general partner)(1)		1,985		895		692				
Undistributed net loss attributable to MPLX LP	\$	(242)	\$	(494)	\$	(705)				

⁽¹⁾ See Note 8 for distribution information.

⁽²⁾ Distributions declared on January 25, 2018 on general partner common units issued on February 1, 2018 in exchange for the economic general partner interest, including IDRs, are shown as general partner distributions declared.

					2018					
(In millions, except per unit data)	Limited Partners' Redeemable Limited Partners' Preferred Common Units Units		Тс		tal					
Basic and diluted net income attributable to MPLX LP unit:	per									
Net income attributable to MPLX LP:										
Distributions declared		\$	1,985		75	\$		2,060		
Undistributed net loss attributable to MPLX LP			(242)				(242)		
Net income attributable to MPLX LP ⁽¹⁾		\$	1,743	\$	75	\$		1,818		
Weighted average units outstanding:										
Basic			761					761		
Diluted			761					761		
Net income attributable to MPLX LP per limited partners	er uni	t:								
Basic		\$	2.29							
Diluted		\$	2.29							
				201	7					
(In millions, except per unit data)		General Limited Partners' Common Units								Total
Basic and diluted net income attributable to MPLX LP per unit:										
Net income attributable to MPLX LP:										
Distributions declared (including IDRs)	\$	328	\$	895	\$	65	\$	1,288		
Undistributed net loss attributable to MPLX LP		(10)		(484)		_		(494)		
Net income attributable to MPLX LP(1)	\$	318	\$	411	\$	65	\$	794		
Weighted average units outstanding:										
Basic		8		385				393		
Diluted		8		388				396		
Net income attributable to MPLX LP per limited										
partner unit:										
Basic			\$	1.07						
Diluted			\$	1.06						

2010								
General Partner		Limited Partners' Common Units		Redeemable Preferred Units		Т	`otal	
			ć0. 5				0.00	
\$		\$		\$	41	\$	938	
	(14)		(691)				(705)	
\$	191	\$	1	\$	41	\$	233	
	7		331				338	
	7		338				345	
		\$	_					
		\$	_					
	\$	\$ 205 (14)	\$ 205 \$ (14) \$ 7 7	Seneral Partner Limited Partners'	General Partner Limited Partners' Common Units Redector \$ 205 \$ 692 \$ (691) \$ 191 \$ 1 \$ \$ 7 7 331 7 338	General Partner Limited Partners' Common Units Redeemable Preferred Units \$ 205 \$ 692 \$ 41 (14) (691) — \$ 191 \$ 1 \$ 41 7 331 7 338 \$ —	General Partner Limited Partners' Common Units Redeemable Preferred Units T \$ 205 \$ 692 \$ 41 \$ (14) \$ (691) \$ — \$ 41 \$ \$ \$ 191 \$ 1 \$ 41 \$ \$ 331 \$ 338	

2016

8. Equity

Units Outstanding—MPLX had 794,089,518 common units outstanding as of December 31, 2018. Of that number, 504,701,934 were owned by MPC, which also owns the non-economic GP interest as described below.

GP/IDR Exchange—On February 1, 2018, MPC cancelled its IDRs and converted its economic GP Interest in MPLX LP to a non-economic general partner interest in exchange for 275 million newly issued MPLX LP common units. These units had a fair value of \$10.4 billion as of the transaction date as recorded on the Consolidated Statements of Equity. As a result of this transaction, the general partner units and IDRs were eliminated, are no longer outstanding, and no longer participate in distributions of cash from MPLX. MPC continues to own the non-economic GP Interest in MPLX LP. See Note 7 for more information on the net income per unit calculation.

Reorganization Transactions—On September 1, 2016, MPLX and various affiliates initiated a series of reorganization transactions in order to simplify MPLX's ownership structure and its financial and tax reporting requirements (the "Class A Reorganization"). In connection with these transactions, all of the issued and outstanding MPLX LP Class A units, all of which were held by MarkWest Hydrocarbon, L.L.C. ("MarkWest Hydrocarbon"), were either distributed to, or purchased by, MPC in exchange for \$84 million in cash, 21,401,137 MPLX LP common units and 436,758 MPLX LP general partner units. Following these initial transactions, the MPLX LP Class A units were exchanged on a one-for-one basis for newly issued common units representing limited partner interests in MPLX LP. MPC also contributed \$141 million to facilitate the repayment of intercompany debt between MarkWest Hydrocarbon and MarkWest. As a result of these transactions, the MPLX LP Class A units were eliminated, are no longer outstanding and no longer participate in distributions of cash from MPLX. Cash that is derived from or attributable to MarkWest Hydrocarbon's operations is now treated in the same manner as cash derived from or attributable to other operations of MPLX and its subsidiaries.

Class B Conversions—On July 1, 2016 and July 1, 2017, each Class B unit of MPLX LP was converted, in two equal installments, into 1.09 MPLX LP common units and the right to receive \$6.20 in cash. Upon the conversion of each tranche of the Class B units, the right of the unitholder, M&R MWE Liberty LLC and certain of its affiliates ("M&R"), to vote as a common unitholder of MPLX was limited to a maximum of five percent of MPLX's outstanding common units. Additionally, M&R was given the right with respect to such converted units

⁽¹⁾ Allocation of net income/(loss) attributable to MPLX LP assumes all earnings for the period were distributed based on the current period distribution priorities.

to participate in MPLX's underwritten offerings of our common units including continuous equity or similar programs in an amount up to 20 percent of the total number of common units offered by MPLX. M&R may freely transfer such converted units, and M&R has the right to demand that MPLX LP conduct up to three underwritten offerings beginning in 2017, but restricted to no more than one offering in any twelve-month period. Following the July 1, 2017 conversion, all MPLX LP Class B units were eliminated, are no longer outstanding and no longer participate in distributions of cash from MPLX.

ATM Program—On March 13, 2018, MPLX entered into a Third Amended and Restated Distribution Agreement, providing for the at-the-market issuances of common units having an aggregate offering price of up to approximately \$1.7 billion, in amounts, at prices and on terms determined by market conditions and other factors at the time of the offerings (such continuous offering program, or at-the-market program is referred to as the "ATM Program"). During the year ended December 31, 2018, MPLX issued no common units under the ATM Program. During the years ended December 31, 2017 and 2016, MPLX issued an aggregate of 13,846,998 and 26,347,887 common units, respectively, under our ATM Program, generating net proceeds of approximately \$473 million and \$776 million, respectively. MPLX used the net proceeds from sales under the ATM Program for general business purposes, including repayment or refinancing of debt, and funding for acquisitions, working capital requirements and capital expenditures.

The table below summarizes the changes in the number of units outstanding for the years ended December 31, 2016, 2017, and 2018:

(In units)	Common	Class B	General Partner ⁽¹⁾	Total
Balance at December 31, 2015	296,687,176	7,981,756	6,800,475	311,469,407
Unit-based compensation awards	120,989		2,470	123,459
Issuance of units under the ATM Program	26,347,887	_	537,710	26,885,597
Contribution of HSM (See Note 4)	22,534,002	_	459,878	22,993,880
Class B Conversion	4,350,057	(3,990,878)	7,330	366,509
Class A Reorganization	7,153,177	_	(436,758)	6,716,419
Balance at December 31, 2016	357,193,288	3,990,878	7,371,105	368,555,271
Unit-based compensation awards	268,167	_	5,472	273,639
Issuance of units under the ATM Program	13,846,998	_	282,591	14,129,589
Contribution of HST/WHC/MPLXT (See				
Note 4)	12,960,376	_	264,497	13,224,873
Contribution of the Joint-Interest				
Acquisition (See Note 4)	18,511,134	_	377,778	18,888,912
Class B conversion	4,350,057	(3,990,878)	7,330	366,509
Balance at December 31, 2017	407,130,020	_	8,308,773	415,438,793
Unit-based compensation awards	348,387	_	140	348,527
Contribution of Refining Logistics and Fuels				
Distribution (See Note 4)	111,611,111	_	2,277,778	113,888,889
Conversion of GP economic interests	275,000,000	_	(10,586,691)	264,413,309
Balance at December 31, 2018	794,089,518			794,089,518

Changes to the number of general partner units outstanding, other than changes due to contributions made to MPC for the acquisitions of HSM, HST, WHC, MPLXT, the Joint-Interest Acquisition and Refining Logistics and Fuels Distribution, are the result of cash contributions made by the general partner in order to maintain its two percent GP Interest.

Issuance of Additional Securities—The Partnership Agreement authorizes MPLX to issue an unlimited number of additional securities for the consideration and on the terms and conditions determined by the general partner without the approval of the unitholders.

Net Income Allocation—In preparing the Consolidated Statements of Equity, net income attributable to MPLX LP is allocated to preferred unitholders first and subsequently allocated to the limited partner unitholders in accordance with their respective ownership percentages. Prior to 2018, when distributions related to the IDRs were made, earnings equal to the amount of those distributions were first allocated to the general partner before the remaining earnings are allocated to the unitholders, based on their respective ownership percentages. The following table presents the allocation of the general partner's GP Interest in net income attributable to MPLX LP, for income statement periods occurring prior to the exchange of the GP economic interests:

(In millions)	2017		2017 20	
Net income attributable to MPLX LP	\$	794	\$	233
Less: Preferred unit distributions		65		41
General partner's IDRs and other		310		191
Net income attributable to MPLX LP available to general and limited partners		419		1
General partner's two percent GP Interest in net income attributable to MPLX LP		8		_
General partner's IDRs and other		310		191
General partner's GP Interest in net income attributable to MPLX LP	\$	318	\$	191

Cash Distributions—The Partnership Agreement sets forth the calculation to be used to determine the amount and priority of cash distributions that the common unitholders and preferred unitholders will receive. In accordance with the Partnership Agreement, on January 25, 2019, MPLX declared a quarterly cash distribution, based on the results of the fourth quarter of 2018, totaling \$514 million, or \$0.6475 per common unit; this rate was also received by preferred unitholders. These distributions were paid on February 14, 2019 to unitholders of record on February 5, 2019. Distributions for the fourth quarter of 2017 were \$0.6075 per common unit while distributions for the twelve months ended December 31, 2018 and 2017 were \$2.5300 and \$2.2975 per common unit, respectively.

The allocation of total quarterly cash distributions to general, limited, and preferred unitholders is as follows for the years ended December 31, 2018, 2017 and 2016. MPLX's distributions are declared subsequent to quarter end; therefore, the following table represents total cash distributions applicable to the period in which the distributions were earned.

(In millions)	2018		018 2017		2016
General partner's distributions:					
General partner's distributions on general partner units	\$	_	\$	25	\$ 18
General partner's distributions on IDRs ⁽¹⁾				303	187
Total distribution on general partner units and IDRs				328	205
Limited partners' distributions:					
Common unitholders, includes common units of general					
partner		1,985		895	692
Preferred unit distributions		75		65	41
Total cash distributions declared	\$	2,060	\$	1,288	\$ 938

Includes distributions of fourth quarter 2017 income declared on general partner common units issued February 1, 2018 in exchange for the economic general partner interest.

9. Redeemable Preferred Units

Private Placement of Preferred Units—On May 13, 2016, MPLX LP completed the private placement of approximately 30.8 million 6.5 percent Series A Convertible preferred units for a cash purchase price of \$32.50

per unit. The aggregate net proceeds of approximately \$984 million from the sale of the Preferred units were used for capital expenditures, repayment of debt and general business purposes.

Preferred Unit Distribution Rights—The preferred units rank senior to all common units with respect to distributions and rights upon liquidation. The holders of the preferred units received cumulative quarterly distributions equal to \$0.528125 per unit for each quarter prior to the second quarter of 2018. Beginning with the second quarter of 2018, the holders of the preferred units are entitled to receive a quarterly distribution equal to the greater of \$0.528125 per unit or the amount of distributions they would have received on an as converted basis. For the income earned in the second through fourth quarters of 2018, the distribution rate declared to common unitholders was greater than \$0.528125 per unit; accordingly, the preferred unitholders received the common unit rates in lieu of the lower \$0.528125 base amount.

The changes in the redeemable preferred balance for 2018 and 2017 are summarized below:

(In millions)	 2018	2017
Balance at beginning of period	\$ 1,000	\$ 1,000
Net income allocated	75	65
Distributions received by preferred unitholders	 (71)	(65)
Balance at end of period	\$ 1,004	\$ 1,000

The holders may convert their preferred units into common units at any time after the third anniversary of the issuance date or prior to liquidation, dissolution or winding up of the Partnership, in full or in part, subject to minimum conversion amounts and conditions. After the fourth anniversary of the issuance date, MPLX may convert the preferred units into common units at any time, in whole or in part, subject to certain minimum conversion amounts and conditions, if the closing price of MPLX LP common units is greater than \$48.75 for the 20-day trading period immediately preceding the conversion notice date. The conversion rate for the preferred units shall be the quotient of (a) the sum of (i) \$32.50, plus (ii) any unpaid cash distributions on the applicable preferred unit, divided by (b) \$32.50, subject to adjustment for unit distributions, unit splits and similar transactions. The holders of the preferred units are entitled to vote on an as-converted basis with the common unitholders and will have certain other class voting rights with respect to any amendment to the Partnership Agreement that would adversely affect any rights, preferences or privileges of the preferred units. In addition, upon certain events involving a change of control, the holders of preferred units may elect, among other potential elections, to convert their preferred units to common units at the then applicable change of control conversion rate.

The preferred units are considered redeemable securities under GAAP due to the existence of redemption provisions upon a deemed liquidation event which is outside MPLX's control. Therefore, they are presented as temporary equity in the mezzanine section of the Consolidated Balance Sheets. The preferred units have been recorded at their issuance date fair value, net of issuance costs. Income allocations increase the carrying value and declared distributions decrease the carrying value of the preferred units. As the preferred units are not currently redeemable and not probable of becoming redeemable, adjustment to the initial carrying amount is not necessary and would only be required if it becomes probable that the preferred units would become redeemable.

10. Segment Information

MPLX's chief operating decision maker is the chief executive officer ("CEO") of its general partner. The CEO reviews MPLX's discrete financial information, makes operating decisions, assesses financial performance and allocates resources on a type of service basis. MPLX has two reportable segments: L&S and G&P. Each of these segments is organized and managed based upon the nature of the products and services it offers.

• L&S—transports, stores, distributes and markets crude oil and refined petroleum products.

 G&P—gathers, processes and transports natural gas; gathers, transports, fractionates, stores and markets NGLs.

During the second quarter of 2018, our CEO began to evaluate the performance of our segments using Segment Adjusted EBITDA. We have modified our presentation of segment performance metrics to be consistent with this change, including prior periods presented for consistent and comparable presentation. Amounts included in net income and excluded from Segment Adjusted EBITDA include: (i) depreciation and amortization; (ii) provision/ (benefit) for income taxes; (iii) amortization of deferred financing costs; (iv) extinguishment of debt; (v) non-cash equity-based compensation; (vi) impairment expense; (vii) net interest and other financial costs; (viii) income/(loss) from equity method investments; (ix) distributions and adjustments related to equity method investments; (x) unrealized derivative gains/(losses); (xi) acquisition costs; (xii) noncontrolling interests; and (xiii) other adjustments as deemed necessary. These items are either: (i) believed to be non-recurring in nature; (ii) not believed to be allocable or controlled by the segment; or (iii) are not tied to the operational performance of the segment.

The tables below present information about revenues and other income, capital expenditures and total assets for our reportable segments:

(In millions)	2018			2017	 2016
L&S					
Service revenue	\$	2,289	\$	1,200	\$ 1,006
Rental income		725		279	235
Product related revenue		14		_	
Income from equity method investments		166		36	
Other income		46		47	53
Total segment revenues and other income(1)		3,240		1,562	 1,294
Segment Adjusted EBITDA ⁽²⁾		2,057		775	395
Maintenance capital expenditures		104		79	58
Growth capital expenditures		452		433	493
G&P					
Service revenue		1,574		1,038	888
Rental income		342		277	298
Product related revenue		1,135		897	583
Income/(loss) from equity method investments ⁽³⁾		74		42	(74)
Other income		60		51	 40
Total segment revenues and other income(1)		3,185		2,305	 1,735
Segment Adjusted EBITDA(2)		1,418		1,229	1,024
Maintenance capital expenditures		42		24	26
Growth capital expenditures	\$	1,432	\$	948	\$ 720

Within the total segment revenues and other income amounts presented above, third party revenues for the L&S segment were \$313 million, \$160 million and \$77 million for 2018, 2017 and 2016, respectively. Third party revenues for the G&P segment were \$3,087 million, \$2,246 million and \$1,684 million for 2018, 2017 and 2016, respectively.

⁽²⁾ See below for the reconciliation from Segment Adjusted EBITDA to "Net income."

⁽³⁾ Includes an impairment expense of \$89 million related to one of MPLX's equity method investments for the year ended December 31, 2016.

	December 31,								
(In millions)	2018 2017								
Segment Assets									
Cash and cash equivalents	\$	68	\$	5					
$L\&S^{(1)}$		6,566		4,611					
$G\&P^{(1)}$		16,145		14,884					
Total assets	\$	22,779	\$	19,500					

Equity method investments included in L&S assets were \$1.12 billion at December 31, 2018 and \$1.15 billion at December 31, 2017. Equity method investments included in G&P assets were \$3.05 billion at December 31, 2018 and \$2.86 billion at December 31, 2017.

The table below provides a reconciliation between "Net income" and Segment Adjusted EBITDA.

(In millions)	2018			2017		2016
Reconciliation to Net income:						
L&S Segment Adjusted EBITDA	\$	2,057	\$	775	\$	395
G&P Segment Adjusted EBITDA		1,418		1,229		1,024
Total reportable segments		3,475		2,004		1,419
Depreciation and amortization ⁽¹⁾		(766)		(683)		(591)
(Provision)/benefit for income taxes		(8)		(1)		12
Amortization of deferred financing costs		(59)		(53)		(46)
Loss on extinguishment of debt		(46)		_		
Non-cash equity-based compensation		(19)		(15)		(10)
Impairment expense		_		_		(130)
Net interest and other financial costs		(556)		(301)		(215)
Income/(loss) from equity method investments ⁽²⁾		240		78		(74)
Distributions/adjustments related to equity method						
investments		(447)		(231)		(150)
Unrealized derivative gains/(losses)(3)		5		(6)		(36)
Acquisition costs		(3)		(11)		1
Adjusted EBITDA attributable to noncontrolling interests		18		8		3
Adjusted EBITDA attributable to Predecessor ⁽⁴⁾				47		251
Net income	\$	1,834	\$	836	\$	434

- Depreciation and amortization attributable to L&S was \$240 million, \$163 million and \$128 million for the years ended 2018, 2017 and 2016, respectively. Depreciation and amortization attributable to G&P was \$526 million, \$520 million and \$463 million for 2018, 2017 and 2016, respectively.
- (2) Includes an impairment expense of \$89 million related to one of MPLX's equity method investments for the year ended December 31, 2016.
- (3) MPLX makes a distinction between realized or unrealized gains and losses on derivatives. During the period when a derivative contract is outstanding, changes in the fair value of the derivative are recorded as an unrealized gain or loss. When a derivative contract matures or is settled, the previously recorded unrealized gain or loss is reversed and the realized gain or loss of the contract is recorded.
- (4) The Adjusted EBITDA adjustments related to Predecessor are excluded from Adjusted EBITDA attributable to MPLX LP prior to the acquisition date.

11. Major Customers and Concentration of Credit Risk

MPC accounted for 48 percent, 37 percent and 39 percent of MPLX's operating revenues for 2018, 2017 and 2016, respectively. Operating revenues consist of service revenue, rental income and product sales. MPC accounted for 46 percent, 36 percent and 41 percent of total revenues and other income for 2018, 2017 and 2016, respectively. The revenues are accounted for primarily within the L&S segment. The percent calculations exclude revenues attributable to volumes shipped by MPC under joint tariffs with third parties, which are treated as third-party revenue for accounting purposes.

MPLX has a concentration of trade receivables due from customers in the same industry: MPC, integrated oil companies, independent refining companies and other pipeline companies. These concentrations of customers may impact MPLX's overall exposure to credit risk as they may be similarly affected by changes in economic, regulatory and other factors. MPLX manages its exposure to credit risk through credit analysis, credit limit approvals and monitoring procedures; and for certain transactions, it may request letters of credit, prepayments or guarantees.

12. Income Tax

MPLX is not a taxable entity for United States federal income tax purposes or for the majority of states that impose an income tax. Taxes on MPLX's net income generally are borne by its partners through the allocation of taxable income. On December 22, 2017, the Tax Cuts and Jobs Act was signed into law. While the new law included several key changes to tax law for United States tax payers, as MPLX is not a taxable entity, the new legislation has no impact on MPLX for federal tax purposes.

MPLX's income tax provision/(benefit) primarily results from state and local activity in the states of Texas, Ohio, Kentucky and Tennessee.

As a result of the Class A Reorganization discussed in Note 8, MarkWest Hydrocarbon and MarkWest Hydrocarbon, Inc. (prior to the Class A Reorganization) is no longer a tax paying entity for federal income tax purposes or for the majority of states that impose an income tax effective September 1, 2016. Prior to the Class A Reorganization, in addition to paying tax on its own earnings, MarkWest Hydrocarbon recognized a tax expense or a tax benefit on its proportionate share of Partnership income or loss resulting from MarkWest Hydrocarbon's ownership of Class A units of MPLX, even though for financial reporting purposes such income or loss was eliminated in consolidation. The deferred income tax component prior to the reorganization related to the change in the temporary book to tax basis difference in the carrying amount of the investment in MPLX, which resulted primarily from timing differences in MarkWest Hydrocarbon's proportionate share of the book income or loss as compared with the MarkWest Hydrocarbon's proportionate share of the taxable income or loss of MPLX. MPLX recorded a residual tax provision during the year ended December 31, 2017 related to MarkWest Hydrocarbon's 2016 income taxes. In connection with the Class A Reorganization, MPC assumed \$377 million of MPLX LP's deferred tax liabilities.

MPLX and MarkWest Hydrocarbon recorded income tax expense of \$8 million, \$1 million and a benefit of \$12 million for the years ended December 31, 2018, 2017 and 2016, respectively. The effective tax rate was less than one percent for 2018 and 2017 and five percent for 2016.

The components of the "Provision/(benefit) for income taxes" are as follows:

		D	ecember 31,	
(In millions)	2	2018		2016
Current income tax expense:				
Federal	\$	— \$	— \$	4
State			2	1
Total current		<u> </u>	2	5
Deferred income tax expense/(benefit):				
Federal			_	(16)
State		8	(1)	(1)
Total deferred		8	(1)	(17)
Provision/(benefit) for income taxes	\$	8 \$	1 \$	(12)

A reconciliation of the "Provision/(benefit) for income taxes" and the amount computed by applying the federal statutory rate of 35 percent to the income before income taxes for the year ended December 31, 2016 is as follows:

	December 31, 2016										
(In millions)	MarkWest Hydrocarbon ⁽¹⁾ Partnership			rtnership	Elin	ninations	Consolidated				
(Loss)/income before (benefit)/provision for income tax Federal statutory rate	\$	(41) 35%	\$	461 —%	\$	2 —%	\$	422			
Federal income tax at statutory rate State income taxes net of federal benefit Provision on income from MPLX LP		(14) (2)		1		_		(14) (1)			
Class A units Change in state statutory rate Other		3 (1) 1				_ 		3 (1) 1			
(Benefit)/provision for income taxes	\$	(13)	\$	1	\$	_	\$	(12)			

⁽¹⁾ MarkWest Hydrocarbon paid tax on its share of MPLX's income or loss as a result of its ownership of MPLX LP Class A units through September 1, 2016.

In taxable jurisdictions, MPLX recorded deferred income taxes on all temporary differences between the book and tax basis of assets and liabilities. MPLX has a net deferred tax liability of \$13 million and \$5 million for the years ended December 31, 2018 and 2017, respectively. The net deferred tax liability is principally derived from the difference in the book and tax basis of property, plant and equipment.

Significant judgment is required in evaluating tax positions and determining MPLX and MarkWest Hydrocarbon's provision for income taxes. During the ordinary course of business, there may be transactions and calculations for which the ultimate tax determination is uncertain. However, MPLX and MarkWest Hydrocarbon did not have any material uncertain tax positions for the years ended December 31, 2018, 2017 or 2016.

Any interest and penalties related to income taxes were recorded as a part of the provision for income taxes. Such interest and penalties were a net expense of less than \$1 million in 2018, and a net benefit of less than \$1 million in 2017 and 2016. As of December 31, 2018, 2017 and 2016, no interest and penalties were accrued related to income taxes. In addition, MPLX and MarkWest Hydrocarbon's former corporate entity have federal tax years 2015 through 2016 and state tax years 2013 through 2017 open to examination.

13. Inventories

Inventories consist of the following:

	December 31,							
(In millions)	2018 2017							
NGLs	\$	9	\$	4				
Line fill		9		8				
Spare parts, materials and supplies		59		53				
Total inventories	\$	77	\$	65				

14. Property, Plant and Equipment

Property, plant and equipment with associated accumulated depreciation is shown below:

	Estimated	December 31,					
(In millions)	Useful Lives		2018		2017		
Natural gas gathering and NGL transportation pipelines and							
facilities	5 - 30 years	\$	5,926	\$	5,178		
Processing, fractionation and storage facilities	10 - 40 years		5,336		3,893		
Pipelines and related assets	15 - 51 years		2,560		2,253		
Barges and towing vessels	20 years		620		490		
Terminals and related assets	4 - 30 years		1,178		821		
Refinery related assets	5 - 30 years		938				
Land, building, office equipment and other	3 - 35 years		957		770		
Construction-in-progress			801		1,057		
Total			18,316		14,462		
Less accumulated depreciation			3,677		2,275		
Property, plant and equipment, net		\$	14,639	\$	12,187		

Property, plant and equipment includes gross assets acquired under capital leases of approximately \$25 million at December 31, 2018 and 2017, with related amounts in accumulated depreciation of approximately \$9 million at December 31, 2018 and 2017.

15. Goodwill and Intangibles

Goodwill

MPLX annually evaluates goodwill for impairment as of November 30, as well as whenever events or changes in circumstances indicate it is more likely than not that the fair value of a reporting unit with goodwill is less than its carrying amount. MPLX has 12 reporting units, eight of which had goodwill totaling approximately \$2.6 billion as of November 30, 2018. MPLX performed its annual impairment tests, and no impairments in the carrying value of goodwill were identified. Significant assumptions used to estimate the reporting units' fair value include the discount rate as well as estimates of future cash flows, which are impacted primarily by commodity prices and producer customers' development plans (which impact volumes and capital requirements).

During the first quarter of 2016, MPLX determined that an interim impairment analysis of the goodwill recorded in connection with the MarkWest Merger was necessary based on consideration of a number of first quarter events and circumstances, including (i) continued deterioration of near term commodity prices as well as longer term pricing trends, (ii) recent guidance on reductions to forecasted capital spending, the slowing of drilling activity and the resulting reduced production growth forecasts released or communicated by MPLX's producer

customers and (iii) increases in cost of capital. The combination of these factors was considered to be a triggering event requiring an interim impairment test. Based on the first step of the interim goodwill impairment analysis, the fair value for the three reporting units to which goodwill was assigned in connection with the MarkWest Merger was less than the respective carrying value. In step two of the impairment analysis, the implied fair values of the goodwill were compared to the carrying values within those reporting units. Based on this assessment, it was determined that goodwill was impaired in two of the three reporting units. Accordingly, MPLX recorded an impairment charge of approximately \$129 million in the first quarter of 2016. In the second quarter of 2016, MPLX completed its purchase price allocation, which resulted in an additional \$1 million of impairment expense that would have been recorded in the first quarter of 2016 had the purchase price allocation been completed as of that date. This adjustment to the impairment expense was the result of completing an evaluation of the deferred tax liabilities associated with the MarkWest Merger and their impact on the resulting goodwill that was recognized.

The fair value of the reporting units for the interim goodwill impairment analysis described above was determined based on applying the discounted cash flow method, which is an income approach, and the guideline public company method, which is a market approach. The discounted cash flow fair value estimate is based on known or knowable information at the interim measurement date. The significant assumptions that were used to develop the estimates of the fair values under the discounted cash flow method included management's best estimates of the expected future results and discount rates, which range from 10.5 percent to 11.5 percent. The fair value of the intangibles was determined based on applying the multi-period excess earnings method, which is an income approach. Key assumptions included attrition rates by reporting unit ranging from 5.0 percent to 10.0 percent and discount rates by reporting unit ranging from 11.5 percent to 12.8 percent. Fair value determinations require considerable judgment and are sensitive to changes in underlying assumptions and factors. As a result, there can be no assurance that the estimates and assumptions made for purposes of the interim goodwill impairment test will prove to be an accurate prediction of the future. The fair value measurements for the individual reporting units' overall fair values, and the fair values of the goodwill assigned thereto, represent Level 3 measurements.

The changes in carrying amount of goodwill were as follows for the periods presented:

(In millions)	L&S		G&P	Total
Gross goodwill as of December 31, 2016 Accumulated impairment losses	\$	162	\$ 2,213 (130)	\$ 2,375 (130)
Balance as of December 31, 2016 Impairment losses Acquisitions		162 	2,083	2,245 — —
Balance as of December 31, 2017 Impairment losses Acquisitions		162 — 341	2,083	2,245
Balance as of December 31, 2018		503	2,083	2,586
Gross goodwill as of December 31, 2018 Accumulated impairment losses		503	2,213 (130)	2,716 (130)
Balance as of December 31, 2018	\$	503	\$ 2,083	\$ 2,586

Intangible Assets

MPLX's intangible assets are comprised of customer contracts and relationships, gross intangible assets with accumulated amortization as of December 31, 2018 and 2017 is shown below:

			December 31, 2018							Dece	ember 31, 2017	'	
(In millions)	Useful Life	G ₁	Accumulated Gross Amortization ⁽¹⁾ Net				G	ross		ccumulated nortization ⁽¹⁾		Net	
L&S	4-6 years	\$	9	\$	_	\$	9	\$	_	\$	_	\$	_
G&P	11-25 years		533		(118)		415		533		(80)		453
		\$	542	\$	(118)	\$	424	\$	533	\$	(80)	\$	453

⁽¹⁾ Amortization expense attributable to the G&P segment for the years ended December 31, 2018 and 2017 was \$38 million in both years.

Estimated future amortization expense related to the intangible assets at December 31, 2018 is as follows:

\$ 40
40
40
39
39
 226
\$ 424

16. Fair Value Measurements

Fair Values—Recurring

Fair value measurements and disclosures relate primarily to MPLX's derivative positions as discussed in Note 17. The following table presents the financial instruments carried at fair value on a recurring basis as of December 31, 2018 and 2017 by fair value hierarchy level. MPLX has elected to offset the fair value amounts recognized for multiple derivative contracts executed with the same counterparty.

	I	Decembe	r 31, 20	018	December 31, 2017			
(In millions)	Assets Liabiliti			bilities	es Assets		Liabilities	
Significant unobservable inputs (Level 3)								
Commodity contracts	\$	_	\$	_	\$	_	\$	(2)
Embedded derivatives in commodity contracts				(61)				(64)
Total carrying value in Consolidated Balance Sheets	\$		\$	(61)	\$		\$	(66)

Level 3 instruments include all NGL transactions and embedded derivatives in commodity contracts. The embedded derivative liability relates to a natural gas purchase agreement embedded in a keep-whole processing agreement. The fair value calculation for Level 3 instruments at December 31, 2018 used significant unobservable inputs including: (1) NGL prices interpolated and extrapolated due to inactive markets ranging from \$0.58 to \$1.01 and (2) the probability of renewal of 90 percent for the first five-year term and 80 percent for the second five-year term of the gas purchase agreement and related keep-whole processing agreement. For commodity contracts, increases in forward NGL prices result in a decrease in the fair value of the derivative

assets and an increase in the fair value of derivative liabilities. Increases or decreases in the fractionation spread result in an increase or decrease in the fair value of the embedded derivative liability. An increase in the probability of renewal would result in an increase in the fair value of the related embedded derivative liability.

Changes in Level 3 Fair Value Measurements

The following table is a reconciliation of the net beginning and ending balances recorded for net assets and liabilities classified as Level 3 in the fair value hierarchy.

		201	18	2017				
(In millions)	Der	nmodity ivative acts (net)	Embedded Derivatives in Commodity Contracts (net)	Commodity Derivative Contracts (net)	Embedded Derivatives in Commodity Contracts (net)			
Fair value at beginning of period	\$	(2)	\$ (64)	\$ (6)	\$ (54)			
Total gains/(losses) (realized and unrealized) included								
in earnings ⁽¹⁾		6	(9)	(5)	(19)			
Settlements		(4)	12	9	9			
Fair value at end of period			(61)	(2)	(64)			
The amount of total losses for the period included in earnings attributable to the change in unrealized gains or losses relating to liabilities still held at end	¢		Φ (0)	Φ (2)	Φ (6)			
of period	\$	_	\$ (8)	\$ (2)	\$ (6)			

⁽¹⁾ Gains and losses on commodity derivatives classified as Level 3 are recorded in "Product sales" on the Consolidated Statements of Income. Gains and losses on derivatives embedded in commodity contracts are recorded in "Purchased product costs" and "Cost of revenues" on the Consolidated Statements of Income.

Fair Values—Reported

MPLX's primary financial instruments are cash and cash equivalents, receivables, receivables from related parties, accounts payable, payables to related parties and long-term debt. MPLX's fair value assessment incorporates a variety of considerations, including (1) the duration of the instruments, (2) MPC's investment-grade credit rating and (3) the historical incurrence of and expected future insignificance of bad debt expense, which includes an evaluation of counterparty credit risk. MPLX believes the carrying values of its current assets and liabilities approximate fair value. The recorded value of the amounts outstanding under the bank revolving credit facility, if any, approximates fair value due to the variable interest rate that approximates current market rates. Derivative instruments are recorded at fair value, based on available market information (see Note 17).

The fair value of MPLX's long-term debt is estimated based on recent market non-binding indicative quotes. The fair value of the SMR liability is estimated using a discounted cash flow approach based on the contractual cash flows and MPLX's unsecured borrowing rate. The long-term debt and SMR liability fair values are considered Level 3 measurements. The following table summarizes the fair value and carrying value of the long-term debt, excluding capital leases, and SMR liability.

		December 31,									
		2018					2017				
(In millions)	Fa	Fair Value Car		Carrying Value		Fair Value		Carrying Value			
Long-term debt	\$	13,169	\$	13,484	\$	7,718	\$	6,966			
SMR liability		92		86		104		91			

17. Derivative Financial Instruments

As of December 31, 2018, MPLX had no outstanding commodity contracts.

Embedded Derivative—MPLX has a natural gas purchase commitment embedded in a keep-whole processing agreement with a producer customer in the Southern Appalachian region expiring in December 2022. The customer has the unilateral option to extend the agreement for two consecutive five-year terms through December 2032. For accounting purposes, these natural gas purchase commitment and term extending options have been aggregated into a single compound embedded derivative. The probability of the customer exercising its options is determined based on assumptions about the customer's potential business strategy decision points that may exist at the time they would elect whether to renew the contract. The changes in fair value of this compound embedded derivative are based on the difference between the contractual and index pricing, the probability of the producer customer exercising its option to extend and the estimated favorability of these contracts compared to current market conditions. The changes in fair value are recorded in earnings through "Purchased product costs" on the Consolidated Statements of Income. As of December 31, 2018 and 2017, the estimated fair value of this contract was a liability of \$61 million and \$64 million, respectively.

Certain derivative positions are subject to master netting agreements; therefore, MPLX has elected to offset derivative assets and liabilities that are legally permissible to be offset. As of December 31, 2018 and 2017, there were no derivative assets or liabilities that were offset on the Consolidated Balance Sheets. The impact of MPLX's derivative instruments on its Consolidated Balance Sheets is summarized below:

(In millions) Derivative contracts not designated as hedging instruments and their balance sheet location		December 31, 2018				December 31, 2017			
		Asset		Liability		Asset		Liability	
Commodity contracts ⁽¹⁾ Other current assets / Other current liabilities Other noncurrent assets / Deferred credits and	\$	_	\$	(7)	\$	_	\$	(14)	
other liabilities				(54)				(52)	
Total	\$		\$	(61)	\$		\$	(66)	

⁽¹⁾ Includes embedded derivatives in commodity contracts as discussed above.

For further information regarding the fair value measurement of derivative instruments, including the effect of master netting arrangements or collateral, see Note 16. See Note 2 for a discussion of derivatives MPLX uses and the reasons for them. MPLX does not designate any of its commodity derivative positions as hedges for accounting purposes.

The impact of MPLX's derivative contracts not designated as hedging instruments and the location of gains and losses recognized on the Consolidated Statements of Income is summarized below:

	December 31,					
(In millions)		2018	2017		2016	
Product sales Realized gains/(losses) Unrealized gains/(losses)	\$	4 2	\$ (9)) : L	\$ 2 (15)	
Total derivative gains/(losses) related to product sales		6	(5	<u>(</u>	(13)	
Purchased product costs Realized losses Unrealized gains/(losses) Total derivative loss related to purchased product costs		(12) 3 (9)	(9 (10 (19	<u>)</u> _	(5) (22) (27)	
Cost of revenues Realized losses Unrealized gains				 - 	(3)	
Total derivative losses related to cost of revenues		_	_		(2)	
Total derivative losses	\$	(3)	\$ (24	.) [\$ (42)	

18. DebtMPLX's outstanding borrowings at December 31, 2018 and 2017 consisted of the following:

	De			cember 31,		
(In millions)	2018		2017			
MPLX LP:						
Bank revolving credit facility due 2022	\$	_	\$	505		
5.500% senior notes due February 2023		_		710		
3.375% senior notes due March 2023		500		_		
4.500% senior notes due July 2023		989		989		
4.875% senior notes due December 2024		1,149		1,149		
4.000% senior notes due February 2025		500		500		
4.875% senior notes due June 2025		1,189		1,189		
4.125% senior notes due March 2027		1,250		1,250		
4.000% senior notes due March 2028		1,250		_		
4.800% senior notes due February 2029		750		_		
4.500% senior notes due April 2038		1,750		_		
5.200% senior notes due March 2047		1,000		1,000		
4.700% senior notes due April 2048		1,500		_		
5.500% senior notes due February 2049		1,500		_		
4.900% senior notes due April 2058		500		_		
Consolidated subsidiaries:						
MarkWest—4.500%—4.875% senior notes, due 2023-2025		23		63		
Capital lease obligations due 2020		6		7		
Total		13,856		7,362		
Unamortized debt issuance costs		(97)		(27)		
Unamortized discount		(366)		(389)		
Amounts due within one year		(1)		(1)		
Total long-term debt due after one year	\$	13,392	\$	6,945		

The following table shows five years of scheduled debt payments.

(In millions)	
2019	\$ 1
2020	5
2021	_
2022	_
2023	\$ 1,500

Credit Agreements

On July 21, 2017, MPLX entered into a syndicated credit agreement to replace its previously outstanding \$2 billion five-year bank revolving credit facility and \$250 million term loan with a \$2.25 billion five-year bank revolving credit facility that expires in July 2022 (the "MPLX Credit Agreement"). The financial covenants and the interest rate terms contained in the new credit agreement are substantially the same as those contained in the previous bank revolving credit facility. On July 19, 2017, MPLX prepaid the previously outstanding principal of the term loan with cash on hand. The borrowings under the term loan facility bore interest between January 1, 2017 and July 19, 2017 at an average interest rate of 2.407 percent.

The MPLX Credit Agreement includes letter of credit issuing capacity of up to \$222 million and swingline capacity of up to \$100 million. The borrowing capacity under the MPLX Credit Agreement may be increased by up to an additional \$500 million, subject to certain conditions, including the consent of lenders whose commitments would increase. In addition, the maturity date may be extended, for up to two additional one-year periods, subject to, among other conditions, the approval of lenders holding the majority of the commitments then outstanding, provided that the commitments of any non-consenting lenders will terminate on the then-effective maturity date. Borrowings under the MPLX Credit Agreement bear interest at either the Adjusted LIBOR or the Alternate Base Rate (as defined in the MPLX Credit Agreement), at our election, plus a specified margin. MPLX is charged various fees and expenses in connection with the agreement, including administrative agent fees, commitment fees on the unused portion of the facility and fees with respect to issued and outstanding letters of credit. The applicable margins to the benchmark interest rates and certain fees fluctuate based on the credit ratings in effect from time to time on MPLX's long-term debt.

The MPLX Credit Agreement contains certain representations and warranties, affirmative and restrictive covenants and events of default that MPLX considers to be usual and customary for an agreement of this type, including a financial covenant that requires MPLX to maintain a ratio of Consolidated Total Debt as of the end of each fiscal quarter to Consolidated EBITDA (both as defined in the MPLX Credit Agreement) for the prior four fiscal quarters of no greater than 5.0 to 1.0 (or 5.5 to 1.0 for up to two fiscal quarters following certain acquisitions). Consolidated EBITDA is subject to adjustments for certain acquisitions and dispositions completed and capital projects undertaken during the relevant period. Other covenants restrict MPLX and/or certain of its subsidiaries from incurring debt, creating liens on our assets and entering into transactions with affiliates. As of December 31, 2018, MPLX was in compliance with the covenants contained in the MPLX Credit Agreement.

During the year ended December 31, 2018, MPLX borrowed \$1,410 million under the MPLX Credit Agreement, at a weighted average interest rate of 3.464 percent, and repaid \$1,915 million of these borrowings. At December 31, 2018, MPLX had no outstanding borrowings and \$3 million letters of credit outstanding under the new facility, resulting in total availability of \$2.2 billion, or 99.9 percent of the borrowing capacity.

During 2017, MPLX had no borrowings under the previous bank revolving credit facility. During the year ended December 31, 2017, MPLX borrowed \$670 million under the MPLX Credit Agreement, at a weighted average interest rate of 2.748 percent, and repaid \$165 million of these borrowings. At December 31, 2017, MPLX had \$505 million outstanding borrowings and \$3 million letters of credit outstanding under this facility, resulting in total unused loan availability of \$1.7 billion, or 77.4 percent of the borrowing capacity.

Senior Notes

Interest on each series of MPLX LP and MarkWest senior notes is payable semi-annually in arrears, according to the table below.

Senior Notes	Interest payable semi-annually in arrears
3.375% senior notes due 2023	March 15th and September 15th
4.500% senior notes due 2023	January 15th and July 15th
4.875% senior notes due 2024	June 1st and December 1st
4.000% senior notes due 2025	February 15th and August 15th
4.875% senior notes due 2025	June 1st and December 1st
4.125% senior notes due 2027	March 1st and September 1st
4.000% senior notes due 2028	March 15th and September 15th
4.800% senior notes due 2029	February 15th and August 15th
4.500% senior notes due 2038	April 15 th and October 15 th
5.200% senior notes due 2047	March 1st and September 1st
4.700% senior notes due 2048	April 15 th and October 15 th
5.500% senior notes due 2049	February 15th and August 15th
4.900% senior notes due 2058	April 15th and October 15th

On December 10, 2018, MPLX redeemed all of the \$750 million 5.5 percent senior notes due February 15, 2023, \$40 million of which was issued by the MarkWest subsidiary. These notes were redeemed at 101.833 percent of the principal amount, which resulted in a payment of \$14 million related to the note premium and the immediate recognition of \$46 million of unamortized debt issuance costs.

On November 15, 2018, MPLX issued \$2.25 billion aggregate principal amount of senior notes in a public offering, consisting of \$750 million aggregate principal amount of 4.8 percent unsecured senior notes due February 2029 and \$1.5 billion aggregate principal amount of 5.5 percent unsecured senior notes due February 2049 (collectively, the "November 2018 New Senior Notes"). The November 2018 New Senior Notes were offered at a price to the public of 99.432 percent and 98.031 percent of par, respectively. The proceeds were used to repay outstanding borrowings under the MPLX Credit Agreement and the MPC Loan Agreement and to redeem the \$750 million 5.5 percent senior notes due February 2023, as well as for general business purposes. Interest on each series of notes in the November 2018 New Senior Notes is payable semi-annually in arrears, commencing on February 15, 2019.

On February 8, 2018, MPLX issued \$5.5 billion aggregate principal amount of senior notes in a public offering, consisting of \$500 million aggregate principal amount of 3.375 percent unsecured senior notes due March 2023, \$1.25 billion aggregate principal amount of 4.0 percent unsecured senior notes due March 2028, \$1.75 billion aggregate principal amount of 4.5 percent unsecured senior notes due April 2038, \$1.5 billion aggregate principal amount of 4.7 percent unsecured senior notes due April 2048, and \$500 million aggregate principal amount of 4.9 percent unsecured senior notes due April 2058 (collectively, the "February 2018 New Senior Notes"). The February 2018 New Senior Notes were offered at a price to the public of 99.931 percent, 99.551 percent, 98.811 percent, 99.348 percent, and 99.289 percent of par, respectively. Also on February 8, 2018, \$4.1 billion of the net proceeds from the offering were used to repay the 364-day term loan facility, which was drawn on February 1, 2018 to fund the cash portion of the dropdown consideration for Refining Logistics and Fuels Distribution. The remaining proceeds were used to repay outstanding borrowings under the MPLX Credit Agreement and the MPC Loan Agreement, as well as for general business purposes. Interest on each series of notes due in 2023 and 2028 is payable semi-annually in arrears, commencing on September 15, 2018. Interest on each series of notes due in 2038, 2048 and 2058 is payable semi-annually in arrears, commencing on October 15, 2018.

On February 10, 2017, MPLX completed a public offering of \$1.25 billion aggregate principal amount of 4.125 percent unsecured senior notes due March 2027 (the "2027 Senior Notes") and \$1.0 billion aggregate principal

amount of 5.200 percent unsecured senior notes due March 2047 (the "2047 Senior Notes"). The 2027 Senior Notes and the 2047 Senior Notes were offered at a price to the public of 99.834 percent and 99.304 percent of par, respectively. The net proceeds were used to fund the \$1.5 billion cash portion of the consideration paid to MPC for the dropdown of assets on March 1, 2017, as well as for general business purposes.

SMR Transaction

On September 1, 2009, MarkWest completed the sale of the SMR (the "SMR Transaction"). At that time, MarkWest had begun constructing the SMR at its Javelina gas processing and fractionation complex in Corpus Christi, Texas. Under the terms of the agreement, MarkWest received proceeds of \$73 million and the purchaser completed the construction of the SMR. MarkWest and the purchaser also executed a related product supply agreement under which MPLX will receive the entire product produced by the SMR through 2030 in exchange for processing fees and the reimbursement of certain other expenses. The processing fee payments began when the SMR commenced operations in March 2010. MarkWest was deemed to have continuing involvement with the SMR as a result of certain provisions in the related agreements. Therefore, the transaction is treated as a financing arrangement under GAAP. MPLX imputes interest on the SMR liability at 6.39 percent annually, its incremental borrowing rate at the time of the purchase accounting valuation. Each processing fee payment has multiple elements: reduction of principal of the SMR liability, interest expense associated with the SMR liability and facility expense related to the operation of the SMR. As part of purchase accounting, the SMR Transaction has been recorded at fair value. As of December 31, 2018 and 2017, the following amounts related to the SMR are included in the accompanying Consolidated Balance Sheets:

(In millions)	December 31, 2018		
Assets			
Property, plant and equipment, net	\$ 51	\$	56
Liabilities			
Accrued liabilities	5		5
Deferred credits and other liabilities	\$ 81	\$	86

19. Revenue

Effect of ASC 606 Adoption

MPLX adopted ASC 606 on January 1, 2018 for all contracts that were not yet completed as of the date of adoption. The details of significant changes and quantitative impact of the new revenue standard are disclosed below.

- Third-party reimbursements—Third-party reimbursements, such as electricity costs, are presented gross on the income statement rather than net within cost of revenues. The gross-up for third-party reimbursements (e.g., increase in "Service revenue"; increase in "Cost of revenues") was \$369 million for the year ended December 31, 2018.
 - MPLX updated the allocation between lease and non-lease components for implicit leases as a result of this ASC 606 gross up. As a result, "Rental income" and "Rental cost of sales" increased by \$65 million for the year ended December 31, 2018.
- Noncash consideration—Under certain processing agreements, MPLX is entitled to retain NGLs or other liquids from the customer. We obtain control of these NGLs and are able to direct the use of the goods. Service revenues are recorded based on the value of the NGLs received on the date the services are performed. Historically, revenue was not recorded on these arrangements until the product was sold. The impact to this change was an increase of \$52 million to "Service revenue—product related" for the year ended December 31, 2018. NGL inventory related to keep-whole volumes was also revalued as a result of this change, with a cumulative effect adjustment of \$1 million and an increase to inventory of \$2 million as of December 31, 2018. The increase in the inventory basis increased "Purchased product costs" by \$50 million for the year ended December 31, 2018.

- Percent-of-proceeds revenues—MPLX's percentage of proceeds revenue received was historically recorded
 in product revenues. Upon adoption of ASC 606, these revenues have been classified in service revenue, as
 the performance obligation related to these contracts is to provide gathering and processing services.
 Revenues will continue to be recorded net under these arrangements as MPLX does not control the product
 prior to sale. For the year ended December 31, 2018, \$146 million was recorded in "Service revenue—
 product related" as opposed to "Product sales."
- *Imbalances*—Historically, all imbalances were recorded net. In certain instances, MPLX's arrangements are structured such that imbalances are cashed-out each period end which results in the transfer of control of a commodity and creates a purchase and/or sale of a commodity under ASC 606. Thus, certain imbalances will be grossed up as a result of adoption. The impact of this change was an increase of \$55 million to "Product sales" and "Purchased product costs" for the year ended December 31, 2018.
- *Aid in construction*—Historically, all aid in construction amounts received were deferred and recognized into revenue. Payments received from non-customers will no longer be deferred as the accounting will not be subject to ASC 606. Such payments will be recorded as a reduction to "Property, plant and equipment, net." The cumulative adjustment wrote down \$3 million of "Property, plant and equipment, net."
- *Oil Allowances*—Historically, oil allowances were recorded when received as consideration for services performed. Under ASC 606, MPLX does not believe such amounts represent consideration from a customer. Any excess product obtained and sold as a result of these allowances is recorded as product sales. This change decreased "Service revenues" and "Service revenues—related party" by \$7 million, and increased "Product sales" and "Product sales related party" by \$7 million for the year ended December 31, 2018.

The cumulative effect of the changes made to our consolidated January 1, 2018 balance sheet for the adoption of ASC 606 was as follows:

(In millions)	Balance at December 31, 2017		ASC 606 Adjustment		Balance at January 1, 20	
Assets						
Inventories	\$	65	\$	1	\$	66
Property, plant and equipment, net		12,187		(3)		12,184
Liabilities						
Long-term deferred revenue		42		(3)		39
Equity						
Common unitholders—public	\$	8,379	\$	1	\$	8,380

Aside from the adjustments to the opening balances noted above, the impact of adoption on the Consolidated Balance Sheets for the year ended December 31, 2018 was approximately a \$2 million adjustment to "Inventories." The disclosure of the impact of adoption on the Consolidated Statements of Income for the year ended December 31, 2018 was as follows:

	December 31, 2018							
(In millions)	ASC 606 Balance		ASC 605 Balance			t of Change er/ (Lower)		
Revenues and other income:								
Service revenue	\$	1,704	\$	1,342	\$	362		
Service revenue—related parties		2,159		2,166		(7)		
Service revenue—product related		198		_		198		
Rental income		349		284		65		
Product sales(1)		897		982		(85)		
Product sales—related parties		49		42		7		
Costs and expenses:								
Cost of revenues ⁽²⁾		948		579		369		
Purchased product costs		845		740		105		
Rental cost of sales		135		70		65		
Depreciation and amortization		766		767		(1)		
Net income	\$	1,834	\$	1,832	\$	2		

⁽¹⁾ G&P "Product sales" for the year ended December 31, 2018 excludes approximately \$5 million of impact related to derivative gains and mark-to-market adjustments.

Disaggregation of Revenue

The following table represents a disaggregation of revenue for each reportable segment for the year ended December 31, 2018:

	December 31, 2018							
(In millions)	L&S			G&P		Total		
Revenues and other income:								
Service revenue	\$	130	\$	1,574	\$	1,704		
Service revenue—related parties		2,159		_		2,159		
Service revenue—product related		_		198		198		
Product sales ⁽¹⁾		7		890		897		
Product sales—related parties		7		42		49		
Total revenues from contracts with customers	\$	2,303	\$	2,704		5,007		
Non-ASC 606 revenue ⁽²⁾						1,418		
Total revenues and other income					\$	6,425		

⁽¹⁾ G&P "Product sales" for the year ended December 31, 2018 excludes approximately \$5 million of impact related to derivative gains and mark-to-market adjustments.

⁽²⁾ Excludes "Purchased product costs," "Rental cost of sales," "Purchases," "Depreciation and amortization," "General and administrative expenses," and "Other taxes."

Non-ASC 606 Revenue includes rental income, income from equity method investments, derivative gains and losses, mark-to-market adjustments, and other income.

Contract Balances

Contract assets typically relate to aid in construction agreements where the revenue recognized and MPLX's rights to consideration for work completed exceeds the amount billed to the customer. Contract assets are generally classified as current and included in "Other current assets" on the Consolidated Balance Sheets.

Contract liabilities, which we refer to as "Deferred revenue" and "Long-term deferred revenue," typically relate to advance payments for aid in construction agreements and deferred customer credits associated with makeup rights and minimum volume commitments. Related to minimum volume commitments, breakage is estimated and recognized into service revenue in instances where it is probable the customer will not use the credit in future periods. We classify contract liabilities as current or long-term based on the timing of when we expect to recognize revenue.

"Receivables, net" primarily relate to our commodity sales. Portions of the "Receivables, net" balance are attributed to the sale of commodity product controlled by MPLX prior to sale while a significant portion of the balance relates to the sale of commodity product on behalf of our producer customers. The sales and related "Receivables, net" are commingled and excluded from the table below. MPLX remits the net sales price back to our producer customers upon completion of the sale. Each period end, certain amounts within accounts payable relate to our payments to producer customers. Such amounts are not deemed material at period end as a result of when we settle with each producer.

The table below reflects the changes in our contract balances for the year ended December 31, 2018:

(In millions)	nce at 1, 2018 ⁽¹⁾	Additions/ (Deletions)		Reve Recogn		Balance at December 31, 20	018
Contract assets	\$ 4	\$	_	\$	_	\$	4
Deferred revenue	5		8		(9)		4
Deferred revenue—related parties	42		40		(32)		50
Long-term deferred revenue	5		5		_		10
Long-term deferred revenue—related parties	\$ 43	\$	(1)	\$	_	\$	42

⁽¹⁾ Balance represents ASC 606 portion of each respective line item.

Remaining Performance Obligations

The table below includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period.

As of December 31, 2018, the amounts allocated to contract assets and contract liabilities on the Consolidated Balance Sheets are \$105 million and are reflected in the amounts below. This will be recognized as revenue as the obligations are satisfied, which is expected to occur over the next 25 years. Further, MPLX does not disclose variable consideration due to volume variability in the table below.

Total revenue on remaining performance obligations ⁽¹⁾⁽²⁾⁽³⁾	\$ 10,139
2023 and thereafter	 5,524
2022	1,151
2021	1,166
2020	1,152
2019	\$ 1,146
(In millions)	

^{(2) \$1} million revenue was recognized related to past performance obligations in the current year.

- (1) All fixed consideration from contracts with customers is included in the amounts presented above. Variable consideration that is constrained or not required to be estimated as it reflects our efforts to perform is excluded.
- (2) Arrangements deemed implicit leases are included in "Rental income" and are excluded from this table.
- Only minimum volume commitments that are deemed fixed are included in the table above. MPLX has various minimum volume commitments in processing arrangements that vary based on the actual Btu content of the gas received. These amounts are deemed variable consideration and are excluded from the table above.

Practical Expedients

We do not disclose information on the future performance obligations for any contract with an original expected duration of one year or less.

20. Supplemental Cash Flow Information

(In millions)	December 31, 2018		mber 31, 2017
Cash and cash equivalents	\$	68	\$ 5
Restricted cash ⁽¹⁾		8	4
Cash, cash equivalents and restricted cash ⁽²⁾	\$	76	\$ 9

- (1) The restricted cash balance is included within "Other current assets" on the Consolidated Balance Sheets.
- (2) As a result of the adoption of ASU 2016-18, Statement of Cash Flows—Restricted Cash, the Consolidated Statements of Cash Flows now explain the change during the period of both "Cash and cash equivalents" and "Restricted cash."

(In millions)	 2018	2017	2016
Net cash provided by operating activities included:			
Interest paid (net of amounts capitalized)	\$ 484	\$ 263	\$ 213
Income taxes paid	1	3	4
Non-cash investing and financing activities:			
Net transfers of property, plant and equipment from materials and			
supplies inventories	2	6	(3)
Contribution—fixed assets to joint venture ⁽¹⁾	_	337	_
Contribution—common units issued ⁽²⁾	\$ 4,236	\$ 1,133	\$ 669

- (1) Contribution of assets to Sherwood Midstream and Sherwood Midstream Holdings. See Note 5.
- (2) For 2016, includes limited partner units issued to MPC as consideration in the acquisition of HSM. For 2017, includes limited and general partner units issued to MPC as consideration in the acquisitions of the joint-interests, HST, WHC and MPLXT. For 2018, includes limited and general partner units issued to MPC as consideration in the acquisition of Refining Logistics and Fuels Distribution. See Note 4.

At December 31, 2017, "Payables—related parties" per the Consolidated Balance Sheets included an \$11 million payable to MPC for distributions of cash received from Joint-Interest Acquisition entities that did not affect cash.

The Consolidated Statements of Cash Flows exclude changes to the Consolidated Balance Sheets that did not affect cash. The following is the change of additions to property, plant and equipment related to capital accruals:

(In millions)	2018			2017		2016	
Increase/(decrease) in capital accruals	\$	104	\$	71	\$	(22)	

21. Accumulated Other Comprehensive Loss

MPLX records an accumulated other comprehensive loss on the Consolidated Balance Sheets relating to pension and other post-retirement benefits provided by LOOP and Explorer to their employees. MPLX is not a sponsor of these benefit plans. As a transfer between entities under common control, MPLX recorded the Joint-Interest Acquisition from MPC on the Consolidated Balance Sheets at MPC's historical basis, which included accumulated other comprehensive loss. MPLX's assumption of the accumulated other comprehensive loss balance had no effect on MPLX's comprehensive income during the period as the balance was accumulated while under the ownership of MPC.

The following table shows the changes in "Accumulated other comprehensive loss" by component during the period December 31, 2016 through December 31, 2018:

Pensio	on Benefits	Retirement Benefits	Total	
\$	_ \$	\$	_	
	(13)	(1)	(14)	
	(13)	(1)	(14)	
	(1)	(1)	(2)	
\$	(14) \$	(2) \$	(16)	
		(13) (13) (1)	Pension Benefits Retirement Benefits \$ — \$ (13) (1) (13) (1) (1) (1)	

- (1) These components of "Accumulated other comprehensive loss" are included in the computation of net periodic benefit cost by LOOP and Explorer and are therefore included on the Consolidated Statements of Income under the caption "Income/(loss) from equity method investments."
- (2) Components of other comprehensive loss—remeasurements relate to actuarial gains and losses as well as amortization of prior service costs. MPLX records an adjustment to "Comprehensive income" in accordance with its ownership interest in LOOP and Explorer.

22. Equity-Based Compensation

Description of the Plan

Effective March 15, 2018, the MPLX LP 2012 Incentive Compensation Plan ("MPLX 2012 Plan") was replaced by the MPLX LP 2018 Incentive Compensation Plan ("MPLX 2018 Plan"). The MPLX 2018 Plan will continue in effect until February 28, 2028, unless terminated earlier. Subject to customary anti-dilution adjustments, the MPLX 2018 Plan allows for no more than 16 million common units representing limited partnership interests in MPLX to be delivered under the plan. The MPLX LP 2012 Plan allowed for no more than 2.75 million MPLX LP common limited partner units to be delivered.

Consistent with the MPLX 2012 Plan, the MPLX 2018 Plan authorizes the MPLX GP board of directors (the "Board") to grant unit options, unit appreciation rights, restricted units and phantom units, distribution equivalent rights, unit awards, profits interest units, performance units and other unit-based awards to the employees, officers and directors of the General Partner, MPLX, or any of their affiliates, including MPC. Common units delivered pursuant to an award granted under the MPLX 2018 Plan may be newly issued common units or acquired in the open market or from any other person, including an affiliate of MPLX, as determined by the Board.

Unit-based Awards under the Plan

MPLX expenses all unit-based payments to employees and non-employee directors based on the grant date fair value of the awards over the requisite service period, adjusted for estimated forfeitures.

Phantom Units—MPLX has granted phantom units under the MPLX 2018 Plan and the MPLX 2012 Plan to non-employee directors of MPLX LP's general partner and of MPC. Awards to non-employee directors are accounted for as non-employee awards. Phantom units granted to non-employee directors vest immediately at the time of the grant, as they are non-forfeitable, but are not issued until the director's departure from the board of directors. Prior to issuance, non-employee directors do not have the right to vote such units and cash distribution equivalents accrue in the form of additional phantom units and will be issued when the director departs from the board of directors.

MPLX has granted phantom units under the MPLX 2018 Plan and the MPLX 2012 Plan to certain officers and non-officers of MPLX LP, MPLX LP's general partner and MPC who make significant contributions to our business. These grants are accounted for as employee awards. In general, these phantom units will vest over a requisite service period of up to three years. Prior to vesting, these phantom unit recipients will not have the right to vote such units and cash distributions declared will be accrued and paid upon vesting. The accrued distributions at December 31, 2018 and 2017 were \$4 million and \$4 million, respectively.

The fair values of phantom units are based on the fair value of MPLX LP common units on the grant date.

Performance Units – MPLX has granted performance units under the MPLX 2018 Plan and the MPLX 2012 Plan to certain officers of the general partner and certain eligible MPC officers who make significant contributions to our business. Performance units are designed to pay out 75 percent in cash and 25 percent in MPLX LP common units. The performance units paying out in cash are accounted for as liability awards and recorded at fair value with a mark-to-market adjustment made each quarter. The performance units paying out in units are accounted for as equity awards. The performance units granted in 2016 have a three-year performance period of January 1, 2016 through December 31, 2018. The payout of the award is dependent on the total unitholder return of MPLX LP common units as compared to the total unitholder return of a selected group of peer partnerships. The final per unit payout will be based on the average of the results of four measurement periods during the period. The performance units granted in 2017 are hybrid awards having a three-year performance period of January 1, 2017 through December 31, 2019. The payout of the award is dependent on two independent conditions, each constituting 50 percent of the overall target units granted. The awards have a performance condition based on MPLX LP's DCF during the last twelve months of the performance period, and a market condition based on MPLX LP's total unitholder return over the entire three-year performance period.

During the first quarter of 2018, a performance award was granted; however, a grant date could not be established based on the nature of the award terms. Given that a grant date cannot be established, no expense or units have been recorded. When a grant date is established, the fair value of the award will be recognized over the remaining service period.

Outstanding Phantom Unit Awards

The following is a summary of phantom unit award activity of MPLX LP common units in 2018:

		Phantom Units				
	Number of Units	Weighted Average Fair Value	Aggregate Intrinsic Value (In millions)			
Outstanding at December 31, 2017	1,351,523 \$	34.53				
Granted	437,092	33.84				
Settled	(509,570)	34.38				
Forfeited	(124,710)	34.50				
Outstanding at December 31, 2018	1,154,335	34.34				
Vested and expected to vest at December 31, 2018	1,139,877	34.34	\$ 35			
Non-forfeitable at December 31, 2018 ⁽¹⁾	321,638 \$	34.59	\$ 10			

(1) Represents a subset of phantom units held by our non-employee directors and certain of our officers and non-officer employees that are generally non-forfeitable and that would be paid out as common units upon the holder's separation from service.

The following is a summary of the values related to phantom units:

	Phanton	m Units
	Intrinsic Value of Units Issued During the Period (in millions)	Value of Units
2018	\$ 18	\$ 33.84
2017	15	36.26
2016	\$ 5	\$ 29.42

As of December 31, 2018, unrecognized compensation cost related to phantom unit awards was \$17 million, which is expected to be recognized over a weighted average period of 1.8 years.

Outstanding Performance Unit Awards

The following table presents a summary of the 2018 activity for performance unit awards to be settled in MPLX LP common units:

	Performan	Performance Units		
	Number of Units	Weighted Average Fair Value		
Outstanding at December 31, 2017 Granted	2,536,594	\$ 0.85		
Settled	(538,594)	1.04		
Forfeited	(56,250)	0.90		
Outstanding at December 31, 2018	1,941,750	\$ 0.80		

The number of common units that would be issued upon target vesting, using the closing price of our common units on December 31, 2018 would be 64,084 common units.

As of December 31, 2018, unrecognized compensation cost related to equity-classified performance unit awards was \$1 million, which is expected to be recognized over a weighted average period of 1.0 year.

Performance units paying out in MPLX LP common units have a grant date fair value calculated using a Monte Carlo valuation model, which requires the input of subjective assumptions. The following table provides a summary of the weighted average inputs used for these assumptions:

	2018	2017	2016
Risk-free interest rate	N/A	1.52%	0.96%
Look-back period	N/A	2.83 years	2.83 years
Expected volatility	N/A	49.34%	47.59%
Grant date fair value of performance units granted	N/A	\$0.90	\$0.63

The assumption for expected volatility of our unit price reflects the historical volatility of MPLX LP common units. The look-back period reflects the remaining performance period at the grant date. The risk-free interest rate for the remaining performance period as of the grant date is based on the U.S. Treasury yield curve in effect at the time of the grant. No grant date fair value has been calculated for performance units granted in 2018, since due to the award terms, a grant date has not yet been established.

Total Unit-Based Compensation Expense

Total unit-based compensation expense for awards settling in MPLX LP common units was \$22 million in 2018, \$18 million in 2017 and \$10 million in 2016.

MPC's Stock-based Compensation

Stock-based compensation expenses charged to MPLX LP under our employee services agreement with MPC were \$6 million, \$2 million and \$5 million for 2018, 2017 and 2016, respectively.

23. Lease Operations

Based on the terms of fee-based transportation and storage services agreements with MPC as well as certain natural gas gathering, transportation and processing agreements, MPLX is considered to be the lessor under several implicit operating lease arrangements in accordance with GAAP. MPLX's primary natural gas implicit lease operations relate to a natural gas gathering agreement in the Marcellus Shale for which it earns a fixed-fee for providing gathering services to a single producer using a dedicated gathering system. As the gathering system is expanded, the fixed-fee charged to the producer is adjusted to include the additional gathering assets in the lease. The primary term of the natural gas gathering arrangement expires in 2038 and will continue thereafter on a year-to-year basis until terminated by either party. Other significant natural gas implicit leases relate to a natural gas processing agreement in the Marcellus Shale and a natural gas processing agreement in the Southern Appalachia region for which MPLX earns minimum monthly fees for providing processing services to a single producer using a dedicated processing plant. The primary term of these natural gas processing agreements expires during 2023 and 2033. The transportation and storage services agreements with MPC are described further in Note 6. MPLX's revenue from its implicit lease arrangements, excluding executory costs, totaled approximately \$928 million in 2018, \$601 million in 2017 and \$586 million in 2016.

MPLX's implicit lease arrangements related to the processing facilities contain contingent rental provisions whereby MPLX receives additional fees if the producer customer exceeds the monthly minimum processed volumes. During the years ended December 31, 2018 and 2017, MPLX received contingent lease payments of \$9 million. During the year ended December 31, 2016, MPLX received \$7 million of contingent lease payments.

The following is a schedule of minimum future rental revenue on the non-cancellable operating leases as of December 31, 2018:

(In millions)	Related Party			Third Party		Total	
2019	\$	748	\$	160	\$	908	
2020		750		159		909	
2021		627		150		777	
2022		627		148		775	
2023		616		142		758	
2024 and thereafter		2,321		1,111		3,432	
Total minimum future rentals	\$	5,689	\$	1,870	\$	7,559	

The following schedule summarizes MPLX's investment in assets held for operating lease by major classes as of December 31, 2018 and 2017:

	December 31,					
(In millions)		2018		2017		
Natural gas gathering and NGL transportation pipelines and						
facilities	\$	964	\$	851		
Processing, fractionation and storage facilities		1,398		573		
Pipelines and related assets		266		253		
Barges and towing vessels	ng vessels 619					
Terminals and related assets		1,178		822		
Refinery related assets		938		_		
Land, building, office equipment and other		162		44		
Construction-in-progress		189		85		
Total		5,714		3,119		
Less accumulated depreciation		2,038		1,056		
Property, plant and equipment, net	\$	3,676	\$	2,063		

24. Asset Retirement Obligations

MPLX's assets subject to AROs are primarily certain gas-gathering pipelines and processing facilities, a crude oil pipeline and other related pipeline assets. MPLX also has land leases that require MPLX to return the land to its original condition upon termination of the lease. MPLX reviews current laws and regulations governing obligations for asset retirements and leases, as well as MPLX's leases and other agreements.

The following is a reconciliation of the changes in the ARO from January 1, 2017 to December 31, 2018:

(In millions)	2	018	2017	
AROs at beginning of period	\$	28	\$	25
Liabilities incurred		1		2
Accretion expense		1		1
AROs at end of period	\$	30	\$	28

At December 31, 2018 and 2017, there were no assets legally restricted for purposes of settling AROs. The AROs have been recorded as part of "Deferred credits and other liabilities" on the accompanying Consolidated Balance Sheets.

In addition to recorded AROs, MPLX has other AROs related to certain gathering, processing and other assets as a result of environmental and other legal requirements. MPLX is not required to perform such work until it permanently ceases operations of the respective assets. Because MPLX considers the operational life of these assets to be indeterminable, an associated ARO cannot be estimated and is not recorded.

25. Commitments and Contingencies

MPLX is the subject of, or a party to, a number of pending or threatened legal actions, contingencies and commitments involving a variety of matters, including laws and regulations relating to the environment. Some of these matters are discussed below. For matters for which MPLX has not recorded an accrued liability, MPLX is unable to estimate a range of possible losses for the reasons discussed in more detail below. However, the ultimate resolution of some of these contingencies could, individually or in the aggregate, be material.

Environmental Matters—MPLX is subject to federal, state and local laws and regulations relating to the environment. These laws generally provide for control of pollutants released into the environment and require responsible parties to undertake remediation of hazardous waste disposal sites. Penalties may be imposed for non-compliance.

At December 31, 2018 and 2017, accrued liabilities for remediation totaled \$14 million and \$13 million, respectively. However, it is not presently possible to estimate the ultimate amount of all remediation costs that might be incurred or the penalties, if any, which may be imposed. At December 31, 2017, there was less than \$1 million in payables to MPC for indemnification of environmental costs related to incidents occurring prior to the asset drops. At December 31, 2018, there was no balance with MPC for these costs.

MarkWest Liberty Midstream and its affiliates agreed to pay a cash penalty of approximately \$0.6 million and to undertake certain supplemental environmental projects with an estimated cost of approximately \$2.4 million, related to civil enforcement allegations associated with permitting and other regulatory obligations for launcher/ receiver and compressor station facilities in southeastern Ohio and western Pennsylvania. On April 24, 2018, MarkWest Liberty Midstream and its affiliates entered into a Consent Decree with the EPA and the Pennsylvania Department of Environmental Protection resolving these issues. The Consent Decree was approved by the court on July 9, 2018 and the penalty has been paid.

MarkWest Liberty Midstream, Ohio Fractionation and MarkWest Utica EMG, together with other MarkWest affiliates, agreed to pay a penalty of approximately \$0.9 million, undertake certain monitoring and emission reduction projects at certain facilities with an estimated cost of approximately \$3.3 million, and implement certain process enhancements for its and its affiliates' leak detection and repair programs at its gas processing and fractionation sites. On November 1, 2018, MPLX and 11 of its subsidiaries entered into a Consent Decree with the EPA, the State of Oklahoma, the Pennsylvania Department of Environmental Protection and the State of West Virginia resolving these issues. The Consent Decree was approved by the court on January 8, 2019 and the penalty has been paid.

MPLX is involved in a number of other environmental enforcement matters arising in the ordinary course of business. While the outcome and impact on MPLX LP cannot be predicted with certainty, management believes the resolution of these environmental matters will not, individually or collectively, have a material adverse effect on its consolidated results of operations, financial position or cash flows.

Other Lawsuits—MPLX, MarkWest, MarkWest Liberty Midstream, MarkWest Liberty Bluestone, L.L.C., Ohio Fractionation and MarkWest Utica EMG (collectively, the "MPLX Parties") are parties to various lawsuits with Bilfinger Westcon, Inc. ("Westcon") that were instituted in 2016 and 2017 in the Court of Common Pleas in Butler County, Pennsylvania, the Circuit Court in Wetzel County, West Virginia, and the Court of Common Pleas in Harrison County, Ohio. The lawsuits relate to disputes regarding construction work performed by Westcon at the Bluestone, Mobley and Cadiz processing complexes in Pennsylvania, West Virginia and Ohio, respectively, and the Hopedale fractionation complex in Ohio. With respect to work performed by Westcon at the Mobley and Bluestone processing complexes, one or more of the MPLX Parties have asserted breach of contract, fraud, and with respect to work performed at the Mobley processing complex, MarkWest Liberty Midstream has also asserted negligent misrepresentation claims against Westcon. Westcon has also asserted claims against one or more of the MPLX Parties regarding these construction projects for breach of contract, unjust enrichment, promissory estoppel, fraud and constructive fraud, tortious interference with contractual relations, and civil conspiracy. Collectively, in the several cases, the MPLX Parties seek in excess of \$10 million, plus an unspecified amount of punitive damages. Collectively, in the several cases, Westcon seeks in excess of \$40 million, plus an unspecified amount of punitive damages. It is possible that, in connection with these lawsuits, the MPLX Parties will incur material amounts of damages. While the ultimate outcome and impact to MPLX cannot be predicted with certainty, MPLX does not consider it reasonably possible that a loss resulting from such lawsuits or other proceedings in excess of any amounts accrued has been incurred that is expected to have a material adverse effect on its consolidated financial position, results of operations, or cash flows.

In 2003, the State of Illinois brought an action against the Premcor Refining Group, Inc. ("Premcor") and Apex Refining Company ("Apex") asserting claims for environmental cleanup related to the refinery owned by these entities in the Hartford/Wood River, Illinois area. In 2006, Premcor and Apex filed third-party complaints against numerous owners and operators of petroleum products facilities in the Hartford/Wood River, Illinois area, including Marathon Pipe Line LLC ("MPL"). These complaints, which have been amended since filing, assert claims of common law nuisance and contribution under the Illinois Contribution Act and other laws for environmental cleanup costs that may be imposed on Premcor and Apex by the State of Illinois. On September 6, 2016, the trial court approved a settlement between Apex and the State of Illinois whereby Apex agreed to settle all claims against it for a \$10 million payment. Premcor filed a motion for permissive appeal and requested a stay to the proceeding until the motion is ruled upon. Premcor reached a settlement with the State of Illinois in the second quarter of 2018, which has been objected to by certain third-party defendants, including MPL, and is subject to court approval. Several third-party defendants in the litigation including MPL have asserted crossclaims in contribution against the various third-party defendants. This litigation is currently pending in the Third Judicial Circuit Court, Madison County, Illinois. The trial concerning Premcor's claims against third-party defendants, including MPL, previously scheduled to commence September 10, 2018, has been postponed and a new trial date has not been set. While the ultimate outcome and impact to MPLX cannot be predicted with certainty, MPLX does not consider it reasonably possible that a loss resulting from such lawsuits or other proceedings in excess of any amounts accrued has been incurred that is expected to have a material adverse effect on its consolidated financial position, results of operations, or cash flows. Under the omnibus agreement, MPC will indemnify MPLX for the full cost of any losses should MPL be deemed responsible for any damages in this lawsuit.

MPLX is also a party to a number of other lawsuits and other proceedings arising in the ordinary course of business. While the ultimate outcome and impact to MPLX cannot be predicted with certainty, MPLX believes the resolution of these other lawsuits and proceedings will not have a material adverse effect on its consolidated financial position, results of operations or cash flows.

Guarantees—Over the years, MPLX has sold various assets in the normal course of its business. Certain of the related agreements contain performance and general guarantees, including guarantees regarding inaccuracies in representations, warranties, covenants and agreements, and environmental and general indemnifications that require MPLX to perform upon the occurrence of a triggering event or condition. These guarantees and indemnifications are part of the normal course of selling assets. MPLX is typically not able to calculate the maximum potential amount of future payments that could be made under such contractual provisions because of the variability inherent in the guarantees and indemnities. Most often, the nature of the guarantees and indemnities is such that there is no appropriate method for quantifying the exposure because the underlying triggering event has little or no past experience upon which a reasonable prediction of the outcome can be based.

Contractual Commitments and Contingencies—At December 31, 2018, MPLX's contractual commitments to acquire property, plant and equipment totaled \$746 million. These commitments were primarily related to plant expansion projects for the Marcellus and Southwest Operations. In addition, from time to time and in the ordinary course of business, MPLX and its affiliates provide guarantees of MPLX's subsidiaries payment and performance obligations in the G&P segment. Certain natural gas processing and gathering arrangements require MPLX to construct new natural gas processing plants, natural gas gathering pipelines and NGL pipelines and contain certain fees and charges if specified construction milestones are not achieved for reasons other than force majeure. In certain cases, certain producers may have the right to cancel the processing arrangements if there are significant delays that are not due to force majeure. As of December 31, 2018, management does not believe there are any indications that MPLX will not be able to meet the construction milestones, that force majeure does not apply or that such fees and charges will otherwise be triggered.

Lease and Other Contractual Obligations—MPLX executed transportation and terminalling agreements that obligate us to minimum volume, throughput or payment commitments over the terms of the agreements, which range from 9 to 11 years. After the minimum volume commitments are met in the transportation and terminalling

agreements, MPLX pays additional amounts based on throughput. There are escalation clauses in the transportation and terminalling agreements, which are based on Consumer Price Index adjustments. The minimum future payments under these agreements as of December 31, 2018 are as follows:

	<u> </u>	
Total	\$	424
2024 and thereafter		180
2023		46
2022		46
2021		48
2020		52
2019	\$	52
(In millions)		

MPLX has various non-cancellable operating lease agreements, most of these leases include renewal options. MPLX also leases certain pipelines under a capital lease that has a fixed price purchase option in 2020. Future minimum commitments as of December 31, 2018, for capital lease obligations and for operating lease obligations having initial or remaining non-cancellable lease terms in excess of one year are as follows:

(In millions)			 Capital Lease Obligation	ıs	Operating Lease Obligations
2019			\$	2	\$ 73
2020				5	70
2021				—	67
2022				_	64
2023				_	58
2024 and thereafter					 719
Total minimum lease payments				7	\$ 1,051
Less: imputed interest costs				1	
Present value of net minimum lease payments			\$	6	
Operating lease rental expense was:					
(In millions)	 2018		 2017		 2016
Minimum rental expense	\$	85	\$	64	\$ 57

SMR Transaction—On September 1, 2009, MarkWest entered into a product supply agreement creating a long-term contractual obligation for the payment of processing fees in exchange for the entire product processed by the SMR. See Note 18 for additional discussion. The product received under this agreement is sold to a refinery customer pursuant to a corresponding long-term agreement. The minimum amounts payable annually under the product supply agreement, excluding the potential impact of inflation adjustments per the agreement, are as follows:

(In millions)	
2019	\$ 17
2020	17
2021	17
2022	17
2023	17
2024 and thereafter	 110
Total minimum payments	195
Less: Services element	75
Less: Interest	 34
Total SMR liability	86
Less: Current portion of SMR liability	 5
Long-term portion of SMR liability	\$ 81

Select Quarterly Financial Data (Unaudited)

	2018				2017			
(In millions, except per unit data)	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	1st Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.
Total revenues and other income	\$ 1,420	\$ 1,578	\$ 1,712	\$ 1,715	\$ 886	\$ 916	\$ 980	\$ 1,085
Income from operations	557	608	672	666	265	280	311	335
Net income	423	456	516	439	187	191	217	241
Net income attributable to								
MPLX LP	421	453	510	434	150	190	216	238
Net income attributable to								
MPLX LP per limited partner								
unit:								
Common—basic	0.61	0.55	0.62	0.52	0.20	0.26	0.29	0.31
Common—diluted	0.61	0.55	0.62	0.52	0.19	0.26	0.29	0.31
Subordinated—basic and								
diluted	_	_	_				_	
Cash distributions declared per								
limited partner common unit	0.6175	0.6275	0.6375	0.6475	0.5400	0.5625	0.5875	0.6075
Distributions declared:								
Limited partner units—Public	179	181	185	187	149	162	170	175
Limited partner units—MPC	288	316	322	327	49	56	62	171
General partner units—MPC	_	_	_	_	5	6	7	_
IDRs—MPC		_			60	70	81	_
Redeemable preferred units	16	20	19	20	16	17	16	16
Total distributions								
declared	\$ 483	\$ 517	\$ 526	\$ 534	\$ 279	\$ 311	\$ 336	\$ 362
aeciarea	3 483	\$ 317	\$ 526	\$ 534	\$ 2/9	\$ 311	336	\$ 302

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosures

None

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

MPLX's management, under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, performed an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934 Act, as amended, as of December 31, 2018. Based on this evaluation, MPLX's management, including our Chief Executive Officer and Chief Financial Officer, concluded that as of December 31, 2018, our disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed by us in the reports that we file or submit under the Securities Exchange Act of 1934 Act, as amended, is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms and to provide reasonable assurance that such information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosures.

Internal Control Over Financial Reporting and Changes in Internal Control Over Financial Reporting

During the three months ended December 31, 2018, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting. See Item 8. Financial Statements and Supplementary Data—Management's Report on Internal Control over Financial Reporting.

Limitations on Controls

Management has designed our disclosure controls and procedures and internal control over financial reporting to provide reasonable assurance of achieving their objectives as specified above. Management does not expect, however, that our disclosure controls and procedures or our internal control over financial reporting will prevent or detect all error and fraud. Any control system, no matter how well designed and operated, is based upon certain assumptions and can provide only reasonable, not absolute, assurance that its objectives will be met. Further, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that management has detected all control issues and instances of fraud, if any, within MPLX.

Item 9B. Other Information

None

Part III

Item 10. Directors, Executive Officers and Corporate Governance

MANAGEMENT OF MPLX LP

MPLX GP LLC, our general partner, is a wholly-owned subsidiary of Marathon Petroleum Corporation ("MPC"). Our general partner manages our operations and activities through its directors and executive officers. Our unitholders do not nominate candidates for, or vote for the election of, the directors of our general partner. Through its indirect ownership of all of the membership interests in our general partner, MPC elects all members of our general partner's board of directors (the "Board"). Directors are elected by the sole member of our general partner and hold office until their successors have been elected or qualified or until their earlier death, resignation, removal or disqualification. Our general partner's executive officers are appointed by, and serve at the discretion of, the Board.

References in this Part III to our "Board," "directors" or "officers" refer to the Board, directors and officers of our general partner.

Neither we nor our subsidiaries directly employ any employees. Our general partner has the sole responsibility for providing the employees and other personnel necessary to conduct our operations. All of the employees who conduct our business are directly employed by affiliates of our general partner, but we sometimes refer to these individuals as our employees for ease of reference.

DIRECTORS AND EXECUTIVE OFFICERS OF MPLX GP LLC

The following table shows information for our directors, and executive and corporate officers.

Name	Age as of January 31, 2019	Position with MPLX GP LLC
Gary R. Heminger	65	Chairman of the Board of Directors and Chief Executive Officer
Michael J. Hennigan	59	Director and President
Pamela K.M. Beall	62	Director, Executive Vice President and Chief Financial Officer
Michael L. Beatty	71	Director
Gregory J. Goff	62	Director
Timothy T. Griffith	49	Director
Christopher A. Helms	64	Director
Garry L. Peiffer	67	Director
Dan D. Sandman	70	Director
Frank M. Semple	67	Director
J. Michael Stice	59	Director
John P. Surma	64	Director
Donald C. Templin	55	Director
Gregory S. Floerke	55	Executive Vice President, Gathering and Processing
John S. Swearingen	59	Executive Vice President, Logistics and Storage
Suzanne Gagle	53	General Counsel
Raymond L. Brooks(a)	58	Senior Vice President
Rick D. Hessling ^(a)	52	Senior Vice President
Brian K. Partee ^(a)	45	Senior Vice President
David L. Whikehart(a)	59	Senior Vice President
Timothy J. Aydt ^(a)	55	Vice President, Business Development
Molly R. Benson ^(a)	52	Vice President, Chief Securities, Governance & Compliance Officer
		and Corporate Secretary
Peter Gilgen ^(a)	62	Vice President and Treasurer
C. Kristopher Hagedorn	42	Vice President and Controller
Kristina A. Kazarian(a)	36	Vice President, Investor Relations
Shawn M. Lyon(a)	51	Vice President, Operations

⁽a) Corporate officer

Gary R. Heminger, 65, was appointed Chairman of the Board and Chief Executive Officer in June 2012. He has served as MPC's Chairman of the Board since April 2016 and as its Chief Executive Officer since 2011. He was also MPC's President from 2011 to 2017. Mr. Heminger has also served as Chairman of the Board and Chief Executive Officer of Tesoro Logistics GP, LLC, a wholly-owned subsidiary of MPC and the general partner of Andeavor Logistics LP, since October 2018. He began his career with Marathon in 1975 and has served in roles in finance and administration, auditing, marketing and commercial, and business development, including as President of Marathon Pipe Line Company; Manager, Business Development and Joint Interest of Marathon Oil Company; and Vice President and Senior Vice President, Business Development, Marathon Ashland Petroleum LLC. In 2001, he was named Executive Vice President, Supply, Transportation and Marketing, and was appointed President of Marathon Petroleum Company LLC and Executive Vice President—Downstream of Marathon Oil Corporation later that year. Mr. Heminger serves on the boards of directors and executive committees of the American Petroleum Institute (API) and the American Fuel & Petrochemicals Manufacturers (AFPM), and is a member of the Oxford Institute for Energy Studies. He is a member of The Ohio State University Board of Trustees and past Chairman of the Tiffin University Board of Trustees. Mr. Heminger holds a bachelor's degree in accounting from Tiffin University and a master's degree in business administration from the University of Dayton, and he is a graduate of the Wharton School Advanced Management Program at the University of Pennsylvania.

Qualifications: Mr. Heminger brings to the Board energy industry expertise, extensive knowledge of all aspects of our business and a breadth of transactional experience. As our Chief Executive Officer, he leverages that expertise in advising on our strategic direction and apprising the Board on issues of significance to our industry and to us.

Other Public Company Directorships: Marathon Petroleum Corporation (since 2011); Tesoro Logistics GP, LLC (since 2018); Fifth Third Bancorp (since 2006); PPG Industries, Inc. (since 2017)

Michael J. Hennigan, 59, was appointed President and elected a member of the Board in June 2017. He has also served on the Tesoro Logistics GP, LLC Board of Directors since October 2018. Prior to joining us in 2017, Mr. Hennigan was President, Crude, NGL and Refined Products of the general partner of Energy Transfer Partners L.P., an energy service provider. Before that, from 2012 to 2017, he served as President and Chief Executive Officer of Sunoco Logistics Partners L.P., an oil and gas transportation, terminalling and storage company, where he was responsible for all operations and business activities, including setting the direction, strategy and vision for the company. Mr. Hennigan joined Sunoco Logistics as Vice President, Business Development in 2009, was named President and Chief Operating Officer in 2010 and was named President and Chief Executive Officer in 2012. He holds a bachelor's degree in chemical engineering from Drexel University.

Qualifications: Mr. Hennigan brings to the Board a unique perspective and valued guidance gained from more than 35 years of industry experience, including as the president and chief executive officer of a successful growth-oriented master limited partnership.

Other Public Company Directorships: Tesoro Logistics GP, LLC (since 2018); Sunoco Partners LLC (2010 to 2017); Niska Gas Storage Partners LLC (2014 to 2016)

Pamela K.M. Beall, 62, has served as our Executive Vice President and Chief Financial Officer since 2016, and was elected a member of the Board in January 2014. She has also served on the Tesoro Logistics GP, LLC Board of Directors since October 2018. Ms. Beall began her career with Marathon in 1978 as an auditor, and then went on to serve as General Manager, Treasury Services, at USX Corporation; Vice President and Treasurer at NationsRent, Inc. and OHM Corporation; and as a member of the boards of directors of System One Services, Inc. and Boyle Engineering. Ms. Beall rejoined Marathon in 2002, serving in areas of increasing responsibility, including as Director, Corporate Affairs; Organizational Vice President, Business Development—Downstream;

Vice President of Global Procurement, Marathon Oil Company; and Vice President of Products, Supply & Optimization. She served as MPC's Vice President, Investor Relations and Government & Public Affairs from 2011 to 2014, when she was named President of MPLX GP. Ms. Beall was also named Executive Vice President, Corporate Planning and Strategy of MPLX GP in 2016. She serves on the University of Findlay Board of Trustees and is a member of the Ohio Society of CPAs. Ms. Beall holds a bachelor's degree in accounting from the University of Findlay and a master's degree in business administration from Bowling Green State University, and she has attended the Oxford Institute for Energy Studies. She is licensed as a certified public accountant in Ohio.

Qualifications: Ms. Beall brings to the Board extensive energy industry experience, specifically in the areas of finance and accounting, business development, risk management, procurement, investor relations and government affairs. In addition, her service as a senior executive in the environmental remediation and industrial product rental sectors equips her to contribute valuable insight into our business and operations.

Other Public Company Directorships: Tesoro Logistics GP, LLC (since 2018); National Retail Properties, Inc. (since 2016)

Michael L. Beatty, 71, was elected a member of the Board in December 2015, at the time of the MarkWest Merger. Mr. Beatty served on the board of directors of MarkWest's general partner from 2008 to 2015, and prior to that, on the board of directors of MarkWest Hydrocarbon. Mr. Beatty is a former Chairman of the law firm of Beatty & Wozniak, P.C., with a practice focused exclusively on energy, including oil and gas exploration, regulatory affairs, public lands, litigation and title. He began his career in the energy industry as in-house counsel for Colorado Interstate Gas Company, and ultimately became Executive Vice President, General Counsel and Director of The Coastal Corporation. He also served as Chief of Staff to Governor Roy Romer of Colorado. Mr. Beatty holds an undergraduate degree from the University of California, Berkeley and a juris doctor degree from Harvard Law School. He also serves on the board of directors of the Cystic Fibrosis Foundation.

Qualifications: Mr. Beatty brings to the Board extensive experience in the oil and gas industry, including significant experience in energy policy and energy regulation gained through his experience as a director, officer and legal counsel of various energy companies, as well as extensive historical knowledge of MarkWest.

Other Public Company Directorships: Denbury Resources Inc. (2007 to 2015); MarkWest Energy GP, L.L.C. (2008 to 2015)

Gregory J. Goff, 62, was elected a member of the Board effective October 1, 2018, upon the conclusion of MPC's acquisition of Andeavor. He has also served as Executive Vice Chairman of MPC and as a member of MPC's Board of Directors since October 2018 and continues his service as a member of the Tesoro Logistics GP, LLC Board of Directors. Prior to MPC's acquisition of Andeavor, Mr. Goff served as Chief Executive Officer and President of Andeavor beginning in May 2010, and as its Chairman of the Board beginning in December 2014. He also served as Chairman of the Board and Chief Executive Officer of Tesoro Logistics GP, LLC from December 2010 to October 2018. Prior to joining Andeavor, Mr. Goff served as Senior Vice President, Commercial for ConocoPhillips, an international, integrated energy company, from 2008 to 2010, and held a number of other positions at ConocoPhillips from 1981 to 2008, including Managing Director and CEO of Conoco JET Nordic; Chairman and Managing Director of Conoco Limited, a UK-based refining and marketing affiliate; President of ConocoPhillips Europe and Asia Pacific downstream operations; President of ConocoPhillips U.S. Lower 48 and Latin America exploration and production business; and President of ConocoPhillips' specialty businesses and business development. Mr. Goff serves on the National Advisory Board of the University of Utah Business School and previously served as Chairman of the Board of AFPM. He holds a bachelor's degree in science and a master's degree in business administration from the University of Utah.

Qualifications: Mr. Goff brings to the Board a deep understanding of and unique perspective on our business, operations and market environment, as well as leadership, industry, strategic planning and operations experience.

Other Public Company Directorships: Marathon Petroleum Corporation (since 2018); Tesoro Logistics GP, LLC (since 2010); PolyOne Corporation (since 2011); Andeavor (2010 to 2018); Western Refining Logistics GP, LLC (2017); QEP Midstream Partners, LP (2014 to 2015); DCP Midstream LP (2008 to 2010)

Timothy T. Griffith, 49, was elected a member of the Board in March 2015. He has served as Senior Vice President and Chief Financial Officer of MPC since 2015. He has also served on the Tesoro Logistics GP, LLC Board of Directors since October 2018. Mr. Griffith previously served as Vice President, Finance and Investor Relations, and Treasurer of MPC and MPLX GP from 2014 to 2015, as Vice President, Finance and Treasurer of MPC from 2011 to 2014 and in that same capacity for MPLX GP from 2012 to 2014. Prior to joining MPC, Mr. Griffith served as Vice President and Treasurer of Smurfit-Stone Container Corporation, where he had executive responsibility for the company's investor interface and treasury operations, including capital structure, cash management, insurance and investment oversight. Mr. Griffith also served as Vice President and Treasurer of Cooper-Standard Automotive; as Assistant Treasurer of Lear Corporation; as the Capital Planning Officer for Comerica Incorporated and as a derivatives specialist with Citicorp Securities. Mr. Griffith holds a bachelor's degree in economics from Michigan State University and a master's degree in business administration from the University of Michigan, and he has attended the Oxford Institute for Energy Studies. He is also a chartered financial analyst, a designation he has held since 1995.

Qualifications: Mr. Griffith brings to the Board extensive experience gained from a variety of roles in finance over the course of his career, including roles of increasing responsibility at several publicly traded and privately sponsored businesses and continuing with the management of the financial affairs of MPC and us. Mr. Griffith has been deeply involved in our strategy formation and execution.

Other Public Company Directorships: Tesoro Logistics GP, LLC (since 2018)

Christopher A. Helms, 64, was elected a member of the Board effective October 2012. Mr. Helms is President and Chief Executive Officer of US Shale Management Company, a wholly owned subsidiary of US Shale Energy Advisors LLC. Mr. Helms is the co-founder of US Shale Energy Advisors LLC, a privately owned entity engaged in the development, ownership and operation of midstream energy assets. He also serves on the Range Resources Corporation Board of Directors and on the board of directors of TRC Companies, L.L.C. From 2005 until his retirement in 2011, Mr. Helms served in various capacities with NiSource Inc. and its affiliate, NiSource Gas Transmission and Storage, including as Executive Vice President and Group Chief Executive Officer. He was Group President, Pipeline of NiSource Inc. from 2005 to 2008, where he was also a member of the Executive Council and the Corporate Risk Management Committee. He served as Chief Executive Officer and Executive Director of NiSource Gas Transmission and Storage from 2008 to 2011. At NiSource, Mr. Helms was responsible for leading the company's interstate gas transmission, storage and midstream businesses. Prior to joining NiSource, Mr. Helms held senior executive positions with CMS Energy Corporation, and subsidiaries of Duke Energy Corporation and PanEnergy Corp. from 1990 to 2005. Mr. Helms holds a bachelor's degree from Southern Illinois University at Edwardsville and a juris doctor degree from the Tulane University School of Law.

Qualifications: Mr. Helms brings to the Board considerable midstream energy expertise, particularly in operations and business combinations, as well as experience in finance, accounting, compliance, strategic planning and risk oversight. His background also includes overseeing joint ventures and mergers and acquisitions within the midstream energy sector and supervising financial reporting functions.

Other Public Company Directorships: Range Resources Corporation (since 2014); Questar Corporation (2013 to 2016)

Garry L. Peiffer, 67, was elected a member of the Board in June 2012, and served as our President from 2012 until his retirement in January 2014. He also served as MPC's Executive Vice President, Corporate Planning and Investor & Government Relations from 2011 until his retirement. He is a member of the board of directors of the Fifth Third Bank (Northwestern Ohio). Mr. Peiffer is also a member of the boards of trustees of the Blanchard

Valley Health System and the Findlay-Hancock County Community Foundation and serves on the Blanchard Valley Port Authority Board. Mr. Peiffer began his career with Marathon in 1974, where he held a variety of management positions with increasing responsibility, including as Supervisor of Employee Savings and Retirement Plans, Controller of Speedway Petroleum Corporation and numerous other marketing and logistics positions. In 1987, Mr. Peiffer was appointed to the President's Commission on Executive Exchange serving for a year in the Pentagon as Special Assistant to the Assistant Secretary of Defense for Production and Logistics. In 1988, he returned to Marathon and was named Vice President of Finance and Administration for Emro Marketing Company. He served as Assistant Controller, Refining, Marketing and Transportation beginning in 1992. He was named Senior Vice President of Finance and Commercial Services for Marathon Ashland Petroleum LLC in 1998 and Executive Vice President of MPC in 2011. Mr. Peiffer holds a bachelor's degree in accounting from Bowling Green State University and passed the certified public accountant exam in Ohio.

Qualifications: As the retired President of our general partner and retired Executive Vice President, Corporate Planning and Investor & Government Relations of MPC, Mr. Peiffer brings to the Board extensive experience in the energy industry gained from his roles at MPC and its affiliates. His significant career accomplishments include leading us through the initial public offering process and our first year of operations, leading finance organizations, successfully realizing several joint ventures and corporate reorganizations and implementing new information technology solutions.

Other Public Company Directorships: None within the last five years

Dan D. Sandman, 70, was elected a member of the Board effective October 2012. Mr. Sandman is an adjunct professor at The Ohio State University Moritz College of Law, where he has taught corporate governance law since 2007. He serves on the CONSOL Coal Resources GP LLC Board of Directors and has served on the board of directors of Roppe Corporation, a privately held company, since 1987. Additionally, Mr. Sandman serves on the boards of directors of the Carnegie Science Center, the Carnegie Hero Commission and Grove City College. He has served as a court-appointed mediator of commercial cases pending in U.S. federal courts and has lectured on corporate governance law at Oxford University. Mr. Sandman began his career with Marathon in 1973, serving in various legal positions of increasing responsibility, ultimately being named General Counsel and Secretary of Marathon in 1986. In 1993, he was named General Counsel and Secretary of USX Corporation. Upon the spinoff of United States Steel Corporation from USX in 2002, Mr. Sandman was named Vice Chairman of the Board of Directors and Chief Legal and Administrative Officer of United States Steel, where he served until his retirement in 2007. During his time with United States Steel, Mr. Sandman was also responsible at various times for management and oversight of aspects of Human Resources, Executive Compensation, Public Relations, Environmental and Government Affairs, the Law Organization and the Corporate Secretary's office. Mr. Sandman holds a bachelor's degree from The Ohio State University and a juris doctor degree from The Ohio State University College of Law, and he attended the Stanford Executive Program in 1989.

Qualifications: Mr. Sandman brings to the Board considerable experience in legal and business affairs, transactional law, regulatory compliance and corporate governance, ethics and risk management matters, as well as an energy industry background.

Other Public Company Directorships: CONSOL Coal Resources GP LLC (since 2017)

Frank M. Semple, 67, was elected a member of the Board effective December 2015, at the time of the MarkWest Merger. He was appointed our Vice Chairman at the close of the MarkWest Merger and served in that position until his retirement in October 2016. He also served as a member of the MPC Board of Directors from December 2015 until October 2018, and has served on the Tesoro Logistics GP, LLC Board of Directors since October 2018. Prior to joining us, Mr. Semple served as President and Chief Executive Officer of MarkWest beginning in 2003, and as Chairman of the Board beginning in 2008. Prior to his time at MarkWest, he served 22 years with The Williams Companies, Inc. and WilTel Communications, including as Chief Operating Officer of WilTel Communications, Senior Vice President/General Manager of Williams Natural Gas Company,

Vice President of Operations and Engineering for Northwest Pipeline Company and division manager for Williams Pipe Line Company. Prior to joining Williams, Mr. Semple served in the United States Navy. He holds a bachelor's degree in mechanical engineering from the United States Naval Academy and has completed the Program for Management Development at Harvard Business School.

Qualifications: Mr. Semple brings to the Board proven leadership ability in managing a complex business and a deep understanding of the midstream sector gained from his experience as Chairman and Chief Executive Officer of MarkWest, as well as significant experience regarding operations, strategic planning, finance and corporate governance matters.

Other Public Company Directorships: Tesoro Logistics GP, LLC (since 2018); Marathon Petroleum Corporation (2015 to 2018); MarkWest Energy GP, L.L.C. (2003 to 2015)

J. Michael Stice, 59, was elected a member of the Board effective April 2018, and as a member of the MPC Board of Directors in February 2017. He has served as the Dean of the Mewbourne College of Earth & Energy at The University of Oklahoma since August 2015. Mr. Stice retired as the Chief Executive Officer of Access Midstream Partners L.P., a gathering and processing master limited partnership, in 2014 and from its board of directors in 2015. He had served as Chief Executive Officer of Access Midstream and previously, Chesapeake Midstream Partners, L.P., since 2009, and as President and Chief Operating Officer of Chesapeake Midstream Development, L.P. and Senior Vice President of natural gas projects of Chesapeake Energy Corporation since 2008. Mr. Stice began his career in 1981 with Conoco, serving in a variety of positions of increasing responsibility. He was named President of ConocoPhillips Qatar in 2003. Mr. Stice holds a bachelor's degree in chemical engineering from the University of Oklahoma, a master's degree in business from Stanford University and a doctorate in education from George Washington University.

Qualifications: Mr. Stice brings to the Board extensive experience with MLPs, including as Chief Executive Officer of one of the largest publicly traded gathering and processing MLPs, and previously served on the board of directors of MarkWest, which we acquired in 2015. He has 35 years of experience in the upstream and midstream gas businesses.

Other Public Company Directorships: Marathon Petroleum Corporation (since 2017); U.S. Silica Holdings, Inc. (since 2013); Spartan Energy Acquisition Corporation (since 2018); Access Midstream Partners GP, L.L.C. (2012 to 2015); MarkWest Energy GP L.L.C. (2015); SandRidge Energy, Inc. (2015 to 2016); Williams Partners GP LLC (2012 to 2015)

John P. Surma, 64, was elected a member of the Board effective October 2012, and as a member of the MPC Board of Directors in July 2011. He retired as the Chief Executive Officer and Executive Chairman of United States Steel Corporation, an integrated steel producer, in 2013. Prior to joining United States Steel, Mr. Surma served in several executive positions with Marathon, including as Senior Vice President, Finance & Accounting of Marathon Oil Company in 1997; President, Speedway SuperAmerica LLC in 1998; Senior Vice President, Supply & Transportation of Marathon Ashland Petroleum LLC in 2000; and President of Marathon Ashland Petroleum in 2001. Prior to joining Marathon, Mr. Surma worked for Price Waterhouse LLP, becoming a partner in 1987. In 1983, Mr. Surma participated in the President's Executive Exchange Program in Washington, D.C., serving as Executive Staff Assistant to the Federal Reserve Board's Vice Chairman. Mr. Surma is on the board of the University of Pittsburgh Medical Center, and formerly chaired the board of the Federal Reserve Bank of Cleveland. He was appointed by President Barack Obama to the President's Advisory Committee for Trade Policy and Negotiations, serving from 2010 to 2014, including as Vice Chairman. Mr. Surma holds a bachelor's degree in accounting from Pennsylvania State University.

Qualifications: Mr. Surma brings to the Board a broad range of experience as the retired chairman and chief executive officer of a large industrial firm and provides valuable input on our strategic direction and operations. He also has significant experience in public accounting and in executive leadership in the energy and steel industries.

Other Public Company Directorships: Marathon Petroleum Corporation (since 2011); Concho Resources Inc. (since 2014); Ingersoll-Rand plc (since 2012); United States Steel Corporation (2001 to 2013)

Donald C. Templin, 55, was elected a member of the Board in June 2012. He has served as President, Refining, Marketing and Supply of MPC since October 2018. He has also served on the Tesoro Logistics GP, LLC Board of Directors since October 2018. Mr. Templin joined MPC as Senior Vice President and Chief Financial Officer in 2011 and was subsequently appointed as Vice President and Chief Financial Officer of MPLX GP in 2012, Executive Vice President, Supply, Transportation and Marketing of MPC in 2015, President of MPLX GP and Executive Vice President of MPC in 2016 and President of MPC in 2017. Prior to joining MPC, Mr. Templin was a managing partner of the audit practice of PricewaterhouseCoopers LLP with more than 25 years of providing auditing and advisory services to a wide variety of private, public and multinational companies. He is a member of the Grove City College Board of Trustees and past Chairman of the Downstream Committee of API. Mr. Templin is a graduate of Grove City College, a certified public accountant, a member of the American Institute of Certified Public Accountants and has attended the Oxford Institute for Energy Studies.

Qualifications: Mr. Templin brings to the Board direct insight into all aspects of our business, from an operational and commercial perspective, and in the areas of accounting, audit and financial management. His long and successful background in public accounting for energy sector clients affords him insight into public company financial reporting requirements and related matters.

Other Public Company Directorships: Tesoro Logistics GP, LLC (since 2018); Calgon Carbon Corporation (2013 to 2018)

Gregory S. Floerke, 55, is Executive Vice President, Gathering and Processing. He joined us in December 2015, at the time of the MarkWest Merger, as Executive Vice President and Chief Commercial Officer, MarkWest Assets. He was named Executive Vice President and Chief Operating Officer, MarkWest Operations in 2016 and assumed his current position in 2018. Prior to joining us, Mr. Floerke served as Executive Vice President and Chief Commercial Officer at MarkWest beginning in 2015, and as Senior Vice President, Northeast region at MarkWest from 2013 to 2015. Previously, Mr. Floerke held senior management positions at Access Midstream Partners, L.P., a gathering and processing master limited partnership, from 2011 until 2013.

John S. Swearingen, 59, is Executive Vice President, Logistics and Storage. He was previously our Vice President, Crude Oil and Refined Products Pipelines and Chief Operating Officer, Pipeline Operations and served as MPC's Senior Vice President, Transportation and Logistics beginning in 2015. He previously served in various leadership positions with MPC and its affiliates, including as MPC's Vice President, Health, Environment, Safety and Security beginning in 2011 and President of Marathon Pipe Line LLC beginning in 2009.

Suzanne Gagle, 53, has served as our General Counsel since October 2017, and as the General Counsel of MPC since March 2016. She was also appointed as the General Counsel of Tesoro Logistics GP, LLC in October 2018. Prior to her role as General Counsel, Ms. Gagle was MPC's Assistant General Counsel, Litigation and Human Resources beginning in April 2011; Senior Group Counsel, Downstream Operations beginning in 2010; and Group Counsel, Litigation, beginning in 2003.

Raymond L. Brooks, 58, has served as our Senior Vice President since February 2018, and as MPC's Executive Vice President, Refining since October 2018, having served as MPC's Senior Vice President, Refining beginning in March 2016. Prior to that, Mr. Brooks was General Manager of MPC's Galveston Bay, Texas refinery beginning in February 2013, its Robinson, Illinois refinery beginning in 2010 and its St. Paul Park, Minnesota refinery beginning in 2006.

Rick D. Hessling, 52, has served as our Senior Vice President, and MPC's Senior Vice President, Crude Oil Supply and Logistics since October 2018. Prior to that, Mr. Hessling was Manager, Crude Oil & Natural Gas Supply and Trading beginning in September 2014. Previously Mr. Hessling served as Crude Oil Logistics & Analysis Manager beginning in July 2011.

Brian K. Partee, 45, has served as our Senior Vice President, and MPC's Senior Vice President, Marketing since October 2018. Prior to that, Mr. Partee was MPC's Vice President, Business Development beginning in February 2018. Previously, Mr. Partee was Director of Business Development beginning in January 2017; Manager of Crude Oil Logistics beginning in September 2014; and Vice President, Business Development and Franchise at Speedway beginning in November 2012.

David L. Whikehart, 59, has served as our Senior Vice President, and MPC's Senior Vice President, Light Products, Supply and Logistics since October 2018. Prior to that, Mr. Whikehart served as MPC's Vice President, Environment, Safety and Corporate Affairs beginning in February 2016 and Director, Product Supply and Optimization beginning in March 2011.

Timothy J. Aydt, 55, has served as our Vice President, Business Development since November 2018, having served as our Vice President, Operations and as President of Marathon Pipe Line LLC beginning in January 2017. Prior to that, he served as MPC's Terminal, Transport and Rail General Manager beginning in 2013, and the Project Director for the Detroit Heavy Oil Upgrade Project beginning in 2008.

Molly R. Benson, 52, has served as our Vice President, Chief Compliance Officer and Corporate Secretary since March 2016, and as Chief Securities and Governance Officer since June 2018. Ms. Benson has served in these same capacities with MPC and Tesoro Logistics GP, LLC beginning in March 2016 and October 2018, respectively. Previously, Ms. Benson was MPC's Assistant General Counsel, Corporate and Finance beginning in April 2012 and Group Counsel, Corporate and Finance beginning in 2011.

Peter Gilgen, 62, has served as our Vice President and Treasurer since February 2017. Prior to that, Mr. Gilgen was our Assistant Treasurer beginning in 2012 and the Assistant Treasurer of MPC beginning in 2011.

C. Kristopher Hagedorn, 42, joined us in 2017 as Vice President and Controller. Prior to that, Mr. Hagedorn was Vice President and Controller at CONSOL Energy Inc., a Pennsylvania-based coal producer and exporter, beginning in 2015, Assistant Controller beginning in 2014 and Director, Financial Accounting beginning in 2012. He served as Chief Accounting Officer for CONE Midstream Partners LP, a publicly traded master limited partnership with gathering assets in the Appalachian Basin, from 2014 to 2015. Previously, Mr. Hagedorn served in positions of increasing responsibility with PricewaterhouseCoopers LLP beginning in 1998.

Kristina A. Kazarian, 36, has served as our Vice President, Investor Relations since April 2018. Ms. Kazarian has also served as the Vice President, Investor Relations of MPC and of Tesoro Logistics GP, LLC beginning in April and October of 2018, respectively. Previously, Ms. Kazarian was Managing Director and head of the MLP, Midstream and Refining Equity Research teams at Credit Suisse, a global investment bank and financial services company, beginning in September 2017. Previously she worked at Deutsche Bank, a global investment bank and financial services company, as Managing Director of MLP, Midstream and Natural Gas Equity Research beginning in September 2014, and as an analyst specializing on various energy industry subsectors with Fidelity Management & Research Company, a privately held investment manager, beginning in 2005.

Shawn M. Lyon, 51, has served as our Vice President, Operations and President, Marathon Pipe Line LLC since November 2018. Prior to that, he was Vice President of Operations for Marathon Pipe Line LLC since 2011.

GOVERNANCE FRAMEWORK

Our Governance Principles provide the functional framework of our Board. They address, among other things, the Board's primary roles, responsibilities and oversight functions, director independence, committee composition, the process for director selection and director qualifications, director compensation and director retirement and resignation.

We have adopted a Code of Ethics for Senior Financial Officers that is specifically applicable to the CEO, the CFO, the Controller and persons performing similar functions, as well as to those designated as Senior Financial

Officers by our Chairman and CEO or our Audit Committee. In addition, we have a Code of Business Conduct that applies to all of our directors, officers and employees. Copies of these documents are available on our website and printed copies are also available upon request to our Corporate Secretary. We will post on our website any amendments to, or waivers from, either of our Codes requiring disclosure under applicable rules within four business days following the date of the amendment or waiver.

Our Whistleblowing as to Accounting Matters Policy establishes procedures for the receipt, retention and treatment of complaints we receive regarding accounting, internal accounting controls or auditing matters, and the confidential, anonymous submission by employees or others of concerns regarding questionable accounting or auditing matters.

Copies of the Governance Principles, the Code of Ethics for Senior Financial Officers, the Code of Business Conduct and the Whistleblowing as to Accounting Matters Policy are available on our website at www.mplx.com under the heading "Investors" and the subheading "Corporate Governance."

DIRECTOR INDEPENDENCE

The Board currently consists of thirteen directors. The NYSE does not require a publicly traded limited partnership like us to have a majority of independent directors on our Board. We are, however, required to have an Audit Committee comprised of at least three independent directors. The Board considered all relevant facts and circumstances including, without limitation, transactions between the director directly or organizations with which the director is affiliated and us, any service by the director on the board of a company with which we conduct business, and the frequency and dollar amounts associated with these transactions, and has determined that each of Messrs. Beatty, Helms, Peiffer, Sandman, Stice and Surma meets the independence standards in our Governance Principles, has no material relationship with us other than as a director, and satisfies the independence requirements of the NYSE and applicable SEC rules. Mr. Daberko, who retired from the Board effective April 25, 2018, also met these independence standards during his service on the Board in 2018.

BOARD LEADERSHIP STRUCTURE

Our Governance Principles provide the Board with the flexibility to determine from time to time the optimal leadership for the Board depending upon our particular needs and circumstances. The Board has determined that Mr. Heminger is in the best position at this time to serve as Chairman due to his extensive knowledge of all aspects of our business, as well as our continued relationship with MPC.

When the CEO is elected Chairman, the Board may appoint an independent director as "Lead Director" to provide independent director oversight and preside over executive sessions of the Board or other Board meetings when the Chairman is absent. Mr. Sandman, an independent director, currently serves as Lead Director of the Board. The Board believes that this leadership structure is in the best interests of our unitholders and us at this time because it strikes an effective balance between management and independent director participation in the Board process.

COMMITTEES OF THE BOARD

Our Board has a standing Audit Committee and Conflicts Committee, and may have such other committees as the Board shall determine from time to time. Each committee operates under a written charter, which is available on our website at www.mplx.com under the heading "Investors" and the subheading "Corporate Governance." Each charter requires the applicable committee to annually assess and report to the Board on the adequacy of the charter.

We have additionally established an executive committee of the board, comprised of Messrs. Heminger and Sandman, to address matters that may arise between meetings of the Board. This executive committee may exercise the powers and authority of the Board subject to specific limitations consistent with applicable law.

Because we are a limited partnership, we are not required to have a compensation committee or a nominating/corporate governance committee.

Audit Committee

Our Audit Committee assists the Board in its oversight of the integrity of our financial statements, and our compliance with legal and regulatory requirements and our disclosure controls and procedures. Our Audit Committee has the sole authority to retain and terminate our independent registered public accounting firm, approve all auditing services and related fees and the terms thereof and pre-approve any non-audit services to be rendered by our independent registered public accounting firm. Our Audit Committee also is responsible for confirming the independence and objectivity of our independent registered public accounting firm. Our independent registered public accounting firm has unrestricted access to our Audit Committee.

Our Audit Committee is comprised of Messrs. Peiffer (Chair), Beatty, Helms and Sandman. The Board has determined that each member of the Audit Committee meets the independence requirements of the NYSE and the SEC, as applicable, and that each is financially literate. The Board also has determined that each of Messrs. Helms and Peiffer qualifies as an "audit committee financial expert," as defined by SEC rules, based on the attributes, education and experience further described in their biographies under "Directors and Executive Officers of MPLX GP LLC," above.

Audit Committee Report

The Audit Committee has reviewed and discussed MPLX's audited financial statements and its report on internal control over financial reporting for 2018 with the management of MPLX GP LLC, MPLX's general partner. The Audit Committee discussed with the independent auditors, PricewaterhouseCoopers LLP, the matters required to be discussed by the Public Company Accounting Oversight Board's standard, Auditing Standard No. 1301. The Committee has received the written disclosures and the letter from PricewaterhouseCoopers LLP required by the applicable requirements of the Public Company Accounting Oversight Board for independent auditor communications with audit committees concerning independence and has discussed with PricewaterhouseCoopers LLP its independence. Based on the review and discussions referred to above, the Audit Committee recommended to the Board that the audited financial statements and the report on internal control over financial reporting for MPLX LP be included in MPLX's Annual Report on Form 10-K for the year ended December 31, 2018, for filing with the SEC.

Garry L. Peiffer, Chair Michael L. Beatty Christopher A. Helms Dan D. Sandman

Conflicts Committee

Our Conflicts Committee reviews specific matters that may involve conflicts of interest in accordance with the terms of our Partnership Agreement. Any matters approved by our Conflicts Committee in good faith will be deemed to be approved by all of our partners and not a breach by our general partner of any duties it may owe our unitholders or us. The members of our Conflicts Committee may not be officers or employees of our general partner or directors, officers or employees of its affiliates, and must meet the independence and experience standards established by the NYSE and the SEC to serve on an audit committee. In addition, the members of our Conflicts Committee may not own any interest in our general partner or any interest in us, our subsidiaries or our affiliates other than common units or awards under our incentive compensation plan.

Our Conflicts Committee is comprised of Messrs. Helms (Chair), Beatty and Sandman. The Board has determined that each member of the Conflicts Committee meets the independence requirements of the NYSE and the SEC, as applicable.

COMMUNICATING WITH THE BOARD

All interested parties, including unitholders, may communicate directly with our independent directors by writing to:

Board of Directors (non-management members) c/o Corporate Secretary, MPLX GP LLC 200 East Hardin Street Findlay, Ohio 45840

Interested parties may communicate with the Chairs of our Audit Committee or Conflicts Committee by sending an email to:

auditchair@mplx.com

conflictschair@mplx.com

Interested parties may communicate with the independent directors, individually or as a group, by sending an e-mail to:

non-managedirectors@mplx.com

The Corporate Secretary will forward to the directors all communications that, in her judgment, are appropriate for consideration by the directors. Examples of communications that would not be considered appropriate include commercial solicitations and matters not relevant to our affairs.

SECTION 16(a) BENEFICIAL OWNERSHIP REPORTING COMPLIANCE

Section 16(a) of the Exchange Act requires our directors, executive officers, and holders of more than 10% of a registered class of our equity securities to file with the SEC initial reports of beneficial ownership and reports of changes in beneficial ownership of our equity securities. Based solely on our review of the reporting forms and written representations provided by the individuals required to file reports, we believe that during the year ended December 31, 2018, our directors, executive officers and greater-than-10% beneficial holders filed the required reports on a timely basis under Section 16(a).

Item 11. Executive Compensation

COMPENSATION DISCUSSION AND ANALYSIS

This compensation discussion and analysis ("CD&A") describes the material components of the executive compensation program for our named executive officers (our "NEOs"). We also provide an overview of our compensation philosophy and objectives and explain how and why 2018 compensation decisions were made. We recommend that this section be read in conjunction with the tables and related disclosures in the "Executive Compensation Tables" section of this Item 11.

NAMED EXECUTIVE OFFICERS

Our NEOs consist of our principal executive officer, principal financial officer and our next three most highly compensated executive officers:

Name	Title
Gary R. Heminger	Chairman of the Board and Chief Executive Officer
Pamela K.M. Beall	Executive Vice President and Chief Financial Officer
Michael J. Hennigan	President
Gregory S. Floerke	Executive Vice President, Gathering and Processing
John S. Swearingen	Executive Vice President, Logistics and Storage

COMPENSATION DECISIONS AND ALLOCATION

We do not directly employ any of the personnel responsible for managing and operating our business. Instead, we contract with MPC to provide the necessary personnel, all of whom are directly employed by MPC or one of its affiliates. Under the terms of the omnibus agreement, described in Part I, Item 1. Business, we pay MPC a fixed amount in return for these services, including services provided by our NEOs.

We have adopted the MPLX LP 2018 Incentive Compensation Plan (the "MPLX 2018 Plan") for the benefit of eligible officers, employees and directors of our general partner and its affiliates, including MPC, who provide services to our business. The compensation committee of MPC's board of directors ("MPC's Compensation Committee"), currently comprised of five independent directors, recommends awards under the MPLX 2018 Plan for our NEOs, subject to approval by our Board, which typically considers such awards on an annual basis. Our Board makes all final determinations with respect to awards under this Plan. All other compensation decisions for our NEOs are made by MPC's Compensation Committee and are not subject to approval by our Board or us.

Compensation Disclosure

Mr. Heminger, our CEO and Chairman, is also CEO and Chairman of MPC, and is generally compensated by MPC for the services he provides to MPC and its affiliates, including us. Mr. Heminger devotes less than a majority of his total business time to us, and we reimburse MPC a fixed amount in return for his services to us. We disclose in this CD&A the amount we reimburse MPC for Mr. Heminger's services, as well as the long-term incentive awards we have granted him. Together, these represent all of the material elements of his compensation attributable to the services he provides to our business. All components of Mr. Heminger's compensation, including those disclosed in this CD&A and those provided directly by MPC, will be disclosed in MPC's proxy statement for 2019.

As Ms. Beall and Messrs. Hennigan, Floerke and Swearingen devoted most of their total business time to us in 2018, this CD&A discloses all components of their compensation, with the non-equity elements of Mr. Swearingen's compensation generally prorated at 75% to reflect the percent allocated to us.

Compensation Consultant

Our Board does not have a standing compensation committee and has not hired its own compensation consultant. MPC's Compensation Committee has engaged Pay Governance, LLC to provide compensation consulting services and comparative compensation information. This information is typically shared with our Board for use in making certain compensation decisions for our NEOs.

ELEMENTS OF COMPENSATION

2018 Base Salary

MPC pays our NEOs a base salary for their services to MPC and its affiliates, including us. Taking into consideration peer group data, each individual's experience, contribution and demonstrated performance, MPC's current and future succession needs, business results, external competitiveness and internal pay equity, MPC's Compensation Committee made the following adjustments to our NEOs' base salaries for 2018:

Name	Previous Base Salary (\$)	Base Salary Effective Apr. 1, 2018 (\$)	Increase (%)
Beall	525,000	545,000	3.8
Hennigan	800,000	900,000	12.5
Floerke	450,000	525,000	16.7
Swearingen ^(a)	375,000	393,750	5.0

⁽a) As noted above in "Compensation Decisions and Allocation," certain elements of Mr. Swearingen's compensation, including his base salary, were allocated to us 75% for 2018 and are reflected as such in this table and in the "Salary" column of the "2018 Summary Compensation Table" below.

MPC's Compensation Committee's decisions to increase Messrs. Hennigan's and Floerke's base salaries in particular were based on each NEO's continued strong performance and the Committee's determination to bring each NEO closer to the market median for his position. The decisions to increase the base salaries of Ms. Beall and Mr. Swearingen reflect annual merit program increases to maintain market competitiveness.

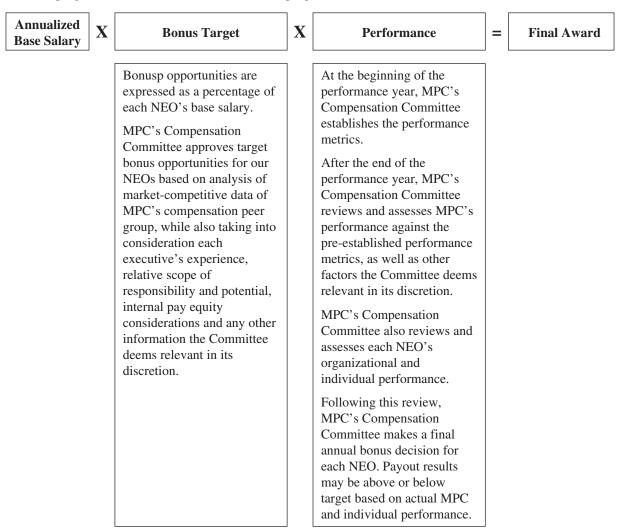
As noted above in "Compensation Decisions and Allocation," we reimburse MPC a fixed amount in return for Mr. Heminger's services to us. For 2018, that amount was \$1,350,000, which is reflected under "Salary" in the "2018 Summary Compensation Table" below.

2018 Annual Cash Bonus Program

Our NEOs are eligible to earn an annual bonus under MPC's Annual Cash Bonus ("ACB") program for the services they provide to MPC and its affiliates, including us. MPC determines awards to our NEOs under the ACB program without input from our Board or us. Under the omnibus agreement, no portion of any bonus paid to our NEOs under the ACB is charged back to us.

2018 ACB Program Structure

In February 2018, MPC's Compensation Committee, based on MPC management's recommendation, approved the ACB program for 2018. Awards under the ACB program for our NEOs are calculated as follows:



Awards under the ACB program are generally capped at 200% of each NEO's target award. MPC does not guarantee minimum bonus payments to our NEOs.

2018 MPC Metrics and Performance

MPC's Compensation Committee believes it is important for the ACB program to emphasize pre-established financial and operational (including environmental and safety) performance measures, and has determined to collectively weight these measures at 70%, as reflected in the table below. The remaining 30% is driven by a number of discretionary factors, including business results in light of opportunities and challenges encountered during the year and adjustments due to the volatility in petroleum-related commodity prices throughout the year, which makes it difficult to establish reliable, pre-determined goals and individual performance achievements. The threshold, target and maximum levels of performance for each performance metric were established for 2018 by evaluating factors such as performance achieved in the prior year(s), anticipated challenges for 2018, MPC's business plan and overall strategy. At the time the performance levels were set for 2018, the threshold levels

were viewed as likely achievable, the target levels were viewed as challenging but achievable, and the maximum levels were viewed as extremely difficult to achieve. The table below provides the goals for each metric, target weighting and MPC's performance achieved in 2018 (\$ in millions):

Category	Performance Metric	Threshold 50% Payout	Target 100% Payout	Maximum 200% Payout	Result	Target Weighting	Performance Achieved
Financial	Operating Income Per	5th or 6th	3rd or 4th	1st or 2nd	4th Position	15%	15%
	Barrel ^(a)	Position	Position	Position	(100% of target)		
	Controllable Costs(b)	7,015	6,680	6,510	\$6,498	10%	20%
					(200% of target)		
	Distributable Cash Flow at	2,335	2,595	2,725	2,781	10%	20%
	MPLX LP(c)				(200% of target)		
	EBITDA ^(d)	3,400	5,700	7,500	8,001	5%	10%
					(200% of target)		
Operational	Mechanical Availability(e)	0.94	0.95	0.96	0.959	10%	19%
-	-				(190% of target)		
	Marathon Safety	1.00	0.65	0.40	1.07	5%	_
	Performance Index(f)				(0% of target)		
	Process Safety Events	0.60	0.39	0.23	0.27	5%	8.8%
	Rate ^(g)				(175% of target)		
	Designated Environmental	82	59	36	23	5%	10%
	Incidents ^(h)				(200% of target)		
	Quality Incidents(i)	500,000	250,000	125,000	_	5%	10%
					(200% of target)		
					Total	70%	112.8%

- (a) Measures MPC's operating income per barrel of crude oil throughput, adjusted for unusual business items and accounting changes, compared to a group of peer companies, which for 2018 were: BP p.l.c.; Chevron Corporation; ExxonMobil Corporation; HollyFrontier Corporation; PBF Energy; Phillips 66; and Valero Energy Corporation.
- (b) Costs generally not subject to change based on production volume, purchases of commodities, sales, throughputs or changes in commodity prices. These costs are adjusted to exclude costs related to acquisitions and divestitures, capital projects in excess of \$500 million, and employee bonus accruals.
- (c) Represents the cash flow available to be paid to our common unitholders, as disclosed in our consolidated financial statements.
- (d) Derived from MPC's consolidated financial statements and adjusted for certain items. This non-GAAP performance metric is calculated as earnings before interest and financing costs, interest income, income taxes, depreciation and amortization expense adjusted to exclude the effects of impairment expenses, pension settlement gains/losses, inventory market valuation adjustments, certain non-cash charges and credits and the effects of acquisitions and divestitures.
- (e) Measures the mechanical availability of the processing equipment in MPC's refineries and the critical equipment in MPC's midstream assets.
- Measures MPC's success and commitment to employee safety. Goals are set annually at best-in-class industry performance, focusing on continual improvement and include common industry metrics.
- (g) Measures MPC's ability to identify, understand and control certain process hazards.
- (h) Measures certain internal environmental performance metrics.
- (i) Shown in absolute dollars. Measures the impact of product quality incidents and cumulative costs to MPC.

NEO Individual Performance

At the beginning of the year, each NEO develops individual performance goals relative to his or her respective organizational responsibilities, which are directly related to MPC's business objectives. The subjective goals used to evaluate the individual performance of our NEOs for 2018 fell into the following general categories:

Goals	Beall	Hennigan	Floerke	Swearingen
Talent development, retention, succession and acquisition	/	✓	✓	✓
Enhancement of unitholder value through return of capital and				
unlocking midstream asset value	1	✓	✓	✓
Excellence in environmental, personal safety and process safety				
improvement		✓	✓	✓
System integration, optimization and removing bottlenecks	1	✓	✓	✓
Growth through organic expansion and acquisition opportunities	✓	✓	✓	✓
Progress on diversity initiatives	1	✓	✓	✓

Following the end of 2018, our CEO reviewed the organizational and individual performance of the other NEOs and made annual bonus recommendations to MPC's Compensation Committee. Key factors considered for 2018 included:

- Reported record full-year net income of \$1.8 billion, an increase of \$1.0 billion compared to 2017;
- Executed on our strategic vision by significantly growing our business, enhancing the stability of our cash flow profile, and simplifying our financial structure; and
- Returned nearly \$2.1 billion to our unitholders.

Bonus Payments for 2018

In February 2019, MPC's Compensation Committee certified the results of the performance metrics for the 2018 ACB program and, taking into consideration MPC's performance relative to the pre-established metrics, each NEO's organizational and individual performance, and the key factors discussed above, awarded the following amounts under the ACB program to our NEOs for 2018:

Name	2018 Year-End Base Salary (\$)	Bonus Target as a % of Base Salary	Target Bonus (\$)		Final Award (\$)
Beall	545,000	70	381,500	176	670,000
Hennigan	900,000	100	900,000	178	1,600,000
Floerke	525,000	70	367,500	166	610,000
Swearingen ^(a)	393,750	70	275,625	166	457,500

⁽a) As noted above in "Compensation Decisions and Allocation," certain elements of Mr. Swearingen's compensation, including his 2018 bonus payment, were allocated to us 75% for 2018 and are reflected as such in this table and in the "Non-Equity Incentive Plan Compensation" column of the "2018 Summary Compensation Table" below.

MPLX Long-Term Incentive Compensation Program

Our long-term incentive ("LTI") compensation program is designed to promote achievement of our long-term business objectives by linking our NEOs' compensation directly to long-term equity performance and strengthening alignment between our NEOs' interests and our unitholders' interests. Awards to our NEOs under our LTI program are granted by a committee of our Board comprised of the Chairman and the independent directors (the "MPLX Committee") following a recommendation by MPC's Compensation Committee. For 2018, the MPLX Committee determined that our NEOs would receive 50% of their MPLX LTI award in the form of performance units and 50% in the form of phantom units.

LTI awards represent a compensation opportunity. The actual long-term compensation value realized by our NEOs will depend on the price of our underlying common units at the time of settlement. The 2018 LTI awards were based on an intended dollar value rather than a specific number of performance units or phantom units. Each form of LTI award is discussed in more detail below.

MPLX Performance Units

The MPLX Committee believes that performance unit awards align our NEOs' interests with the interests of our unitholders. Performance units granted in 2016 are based on Total Unitholder Return ("TUR") relative to a peer group of midstream companies, as further described below. In 2017, the MPLX Committee added a DCF-per-MPLX-common-unit metric to our performance unit program to align it with contemporary industry program design. The MPLX Committee believes the TUR and DCF metrics are important indicators of performance as they are commonly used by unitholders to measure a master limited partnership's ("MLP") performance against others within the same industry. Achieving above-target payouts would require at least one of these two metrics to achieve above-target performance.

TUR for MPLX and each peer group MLP is measured over a 36-month performance cycle. Each performance cycle has four equally weighted measurement periods: (i) the first 12 months, (ii) the second 12 months, (iii) the third 12 months, and (iv) the entire 36-month period. The MPLX Committee believes this structure is appropriate as maximum payout based on TUR may only be achieved by outperforming the TUR peer group for all four measurement periods.

Each peer group member's TUR is determined by the following formula:

The beginning and ending unit prices used for MPLX and each peer group member in the TUR calculation are the averages of each company's closing unit price for the 20 trading days immediately preceding the beginning or ending date of the applicable measurement period. This helps mitigate significant market fluctuations in unit price at the beginning or end of a performance cycle and discourages excessive or inappropriate risk-taking near the end of a performance cycle by limiting the impact on the overall payout of the award.

Our TUR performance percentile within the peer group is measured for each measurement period, with the related payout percentage determined as follows:

TUR Percentile	Payout (% of Target) (a)
100th (Highest)	200%
50 th	100%
25 ^{th(b)}	50%
Below 25 ^{th(b)}	0%

⁽a) Payout for performance between quartiles will be determined using linear interpolation.

Each performance unit is denominated in dollars with a target value of \$1.00. The actual payout may vary from \$0.00 to \$2.00 (0% to 200% of target). The MPLX Committee believes that capping the maximum payout at 200% mitigates excessive or inappropriate risk-taking. In addition, if our TUR is negative for a measurement period, the payout percentage for that measurement period is capped at target (100%) regardless of actual relative TUR performance percentile. These awards settle 25% in common units and 75% in cash. Holders of unvested performance units do not receive cash distributions and do not have voting rights.

⁽b) Increased to the 30th percentile for awards granted in 2018 and thereafter.

Performance units granted in 2016 had a performance cycle of January 1, 2016 through December 31, 2018. The peer group for these performance units was: Andeavor Logistics LP, Buckeye Partners, L.P., Enbridge Energy Partners, L.P., Energy Transfer Partners, L.P., Enterprise Products Partners L.P., Magellan Midstream Partners, L.P., ONEOK Partners, L.P., Phillips 66 Partners LP, Plains All American Pipeline, L.P., Sunoco Logistics Partners L.P., Valero Energy Partners LP, Western Gas Partners, LP and Williams Partners L.P. Due to industry consolidations, ONEOK Partners, L.P. and Sunoco Logistics Partners L.P. were removed from the group effective January 1, 2017, and Enbridge Energy Partners, L.P., Energy Transfer Partners, L.P. and Williams Partners L.P. were removed from the group effective January 1, 2018.

In January 2019, the MPLX Committee certified the final TUR results for the four applicable measurement periods as follows:

Measurement Period	Actual TUR (%)	Position	Percentile Ranking (%)	Payout (% of target)
January 1, 2016—December 31, 2016	3.2	12 th	15.38	0.00
January 1, 2017—December 31, 2017	17.5	1 st	100.00	200.00
January 1, 2018—December 31, 2018	(4.2)	6 th	37.50	75.00
January 1, 2016—December 31, 2018	15.7	4 th	62.50	125.00
			Average:	100.00

The final value of the 2016 performance unit awards was determined by multiplying the simple average of the payout percentages for the four measurement periods by the number of performance units granted. Based on the resulting average, each performance unit granted was multiplied by \$1.00, and the MPLX Committee approved the following payouts to our NEOs:

Name	Target Number of Performance Units	MPLX Committee Approved Payout (\$)
Heminger	1,100,000	1,100,000
Beall	212,500	212,500
Swearingen	100,000	100,000

For performance unit awards granted in 2017 and 2018, the final value will be based 50% on our TUR, as described above, and 50% on a DCF-per-MPLX-common-unit metric. This metric measures the growth of MPLX's full-year DCF over the three-year performance cycle. The MPLX Committee added this metric in 2017 as it believes unitholders view DCF as an important measure of an MLP's performance relative to others in the same industry.

Threshold, target and maximum DCF levels for the awards granted in 2017 are calculated by applying pre-determined compound annual growth rates of 8%, 10% and 12%, respectively, over the DCF per MPLX common unit for 2016 as follows:

Award Year	Metric	Threshold (a) (50% Payout)	Target (a) (100% Payout)	Maximum (a) (200% Payout)
2017	DCF per common unit at			_
	12/31/2019	\$2.9559	\$3.1232	\$3.2967

⁽a) Payout for performance between these levels will be determined using linear interpolation.

Threshold, target and maximum DCF levels for the awards granted in 2018 are determined at the beginning of each year of the performance cycle by the MPLX Committee based on the annual business plan. The levels for 2018 were (in millions):

Award Year	Metric	Threshold ^(a) (50% Payout)	Target ^(a) (100% Payout)	Maximum ^(a) (200% Payout)
2018	DCF at 12/31/2018	\$2,335	\$2,595	\$2,725

(a) Payout will be based on achievement of DCF in each year of the performance cycle as compared with the threshold, target and maximum levels. Payout for performance between these levels will be determined using linear interpolation.

Performance units granted to our NEOs in 2017 and 2018 remain outstanding. See the "Outstanding Equity at 2018 Fiscal Year-End" table below for additional information about these awards, including the amount granted, the performance cycle and the applicable peer group.

MPLX Phantom Units

Grants of phantom units promote increased ownership by our NEOs of our common units, which strengthens alignment between our NEOs' interests and the interests of our unitholders. The value of phantom unit awards is variable, based on the value of an underlying common unit. Awards generally vest in equal installments on the first, second and third anniversaries of the grant date and are settled in common units. Distribution equivalents accrue on the phantom unit awards and are paid upon vesting. Holders of unvested phantom units have no voting rights. NEOs are required to hold all common units received upon vesting of phantom units for at least one year. This requirement applies to units net of taxes at the time of vesting or distribution. See the "2018 Grants of Plan-Based Awards" table below for the number of phantom units granted to our NEOs in 2018.

MPC Long-Term Incentive Compensation

As part of their total equity package, our NEOs also receive LTI awards from MPC. For 2018, MPC's Compensation Committee determined that our NEOs would receive 50% of their MPC LTI award in the form of MPC performance units, 30% in the form of stock options and 20% in the form of restricted stock.

LTI awards represent a compensation opportunity. The actual long-term compensation value realized by our NEOs will depend on the price of MPC's underlying stock at the time of settlement. The 2018 LTI awards were based on an intended dollar value rather than a specific number of performance units, stock options or shares of restricted stock. Each form of LTI award is discussed in more detail below.

MPC Performance Units

MPC's Compensation Committee believes that Total Shareholder Return ("TSR") is the best overall pay-for-performance metric to align our NEO's interests with shareholder interests. MPC performance units evaluate MPC's TSR relative to a peer group of oil industry competitors and a market index. This relative evaluation recognizes the cyclical nature of MPC's business and commodity prices (crude oil) and prevents volatility from directly advantaging or disadvantaging the payout of the award beyond that of MPC's peers. MPC performance units are designed to ensure above target compensation is paid only when MPC's TSR is above the median of the peer group.

TSR for MPC and each of the peer group companies is measured over a 36-month performance cycle. Each performance cycle has four equally weighted measurement periods: (i) the first 12 months, (ii) the second 12 months, (iii) the third 12 months, and (iv) the entire 36-month period. MPC's Compensation Committee believes that this structure is appropriate as maximum payout based on TSR may only be achieved by outperforming the TSR peer group for all four measurement periods.

Each peer group member's TSR for a measurement period is determined by the following formula:

(Ending Stock Price - Beginning Stock Price) + Cumulative Cash Dividends Beginning Stock Price

The beginning and ending stock prices used for MPC and each peer group member in the TSR calculation are the averages of each company's closing stock price for the 20 trading days immediately preceding the beginning and ending date of the applicable measurement period. This helps mitigate significant market fluctuations in stock price at the beginning or end of a performance cycle and discourages excessive or inappropriate risk-taking near the end of a performance cycle by limiting the impact on the overall payout of the award.

MPC's TSR performance percentile within the peer group is measured for each measurement period, with the related payout percentage determined as follows:

TSR Percentile	Payout (% of Target) (a)
100th (Highest)	200%
$50^{ m th}$	100%
25 ^{th(b)}	50%
Below 25th(b)	0%

⁽a) Payout for performance between quartiles will be determined using linear interpolation.

Each performance unit is denominated in dollars with a target value of \$1.00. The actual payout may vary from \$0.00 to \$2.00 (0% to 200% of target). MPC's Compensation Committee believes that capping the maximum payout at 200% mitigates excessive or inappropriate risk-taking. In addition, if MPC's TSR is negative for a measurement period, the payout percentage for that measurement period is capped at target (100%) regardless of actual relative TSR performance percentile. The final value of the performance unit award will be determined by multiplying the simple average of the payout percentages for the four measurement periods by the number of performance units granted. These awards settle 25% in MPC common stock and 75% in cash. Unvested performance units do not receive dividends and do not have voting rights.

Performance units granted in 2016 had a performance cycle of January 1, 2016, through December 31, 2018. The peer group for these performance units was: Andeavor, Chevron Corporation, HollyFrontier Corporation, PBF Energy, Phillips 66, Valero Energy Corporation and the S&P 500 Energy Index. Due to its acquisition by MPC, Andeavor was removed from the group effective January 1, 2018.

In January 2019, MPC's Compensation Committee certified the final TSR results for the four applicable measurement periods as follows:

Measurement Period	Actual TSR (%)	Position	Percentile Ranking (%)	Payout (% of Target)
January 1, 2016—December 31, 2016	(1.8)	5 th	42.86	85.72
January 1, 2017—December 31, 2017	34.6	3^{rd}	71.43	142.86
January 1, 2018—December 31, 2018	(4.6)	4^{th}	50.00	100.00
January 1, 2016—December 31, 2018	25.4	$3^{\rm rd}$	66.67	133.34
			Average:	115.48

⁽b) Increased to the 30th percentile for awards granted in 2018 and thereafter.

Based on the resulting average, each performance unit granted was multiplied by \$1.1548, and MPC's Compensation Committee approved the following payouts to our NEOs:

Name	Target Number of Performance Shares	MPC Compensation Committee Approved Payout (\$)
Beall	170,000	196,316
Swearingen	320,000	369,536

MPC performance units granted to our NEOs in 2017 and 2018 remain outstanding. See the "Outstanding Equity at 2018 Fiscal Year-End" table below for additional information about these awards, including the amount granted, the performance cycle, and the applicable peer group.

MPC Stock Options

MPC's Compensation Committee awards MPC stock options to our NEOs to provide a direct but variable link between their long-term compensation and the long-term value MPC's shareholders receive by investing in MPC. MPC's Compensation Committee believes stock options are inherently performance-based as option holders realize benefits only if the value of MPC's stock increases for all shareholders after the grant date. The exercise price of MPC's stock options is generally equal to the per-share closing price of MPC's common stock on the grant date. Stock options generally vest in equal installments on the first, second and third anniversaries of the grant date and expire 10 years following the grant date. Option holders do not have voting rights or receive dividends on the underlying stock. See the "2018 Grants of Plan-Based Awards" table below for the number of MPC stock options granted to our NEOs in 2018.

MPC Restricted Stock

MPC's Compensation Committee awards restricted stock to our NEOs to promote their ownership of actual shares of MPC's common stock, to help them comply with MPC's stock ownership guidelines and to promote NEO retention. Awards generally vest in equal installments on the first, second and third anniversaries of the grant date. Unvested restricted stock awards accrue dividends, which are paid upon vesting. Holders of unvested restricted stock have voting rights. See the "2018 Grants of Plan-Based Awards" table below for the number of shares of MPC restricted stock granted to our NEOs in 2018.

OTHER BENEFITS

We do not sponsor any benefit plans, programs or policies such as healthcare, life insurance, income protection or retirement benefits for our NEOs, and we do not provide perquisites. However, those types of benefits are generally provided to our NEOs by MPC. MPC makes all determinations with respect to such benefits without input from our Board or us. MPC bears the full cost of these programs, and no portion is charged back to us. We have summarized the material elements of these programs below.

Retirement Benefits

Retirement benefits provided to our NEOs are designed by MPC to be consistent in value and aligned with benefits offered by the other companies with which MPC competes for talent. Benefits payable under MPC's qualified and nonqualified plans are described in more detail in "Post-Employment Benefits" and "Nonqualified Deferred Compensation."

Severance Benefits

Neither we nor MPC have entered into employment agreements with our NEOs. However, MPC's Amended and Restated Executive Change in Control Severance Benefits Plan and our Executive Change in Control Severance Benefits Plan accomplish several objectives, including:

- providing and preserving an economic motivation for participating executives to consider a business combination that might result in an executive's job loss, and
- competing effectively in attracting and retaining executives in an industry that features frequent mergers, acquisitions and divestitures.

These change in control benefits are described in more detail in "Potential Payments Upon Termination or Change in Control."

Perquisites

MPC offers limited perquisites to our NEOs, and believes the perquisites offered are consistent with those offered by MPC's peer group companies.

Our NEOs are eligible for reimbursement for certain tax, estate and financial planning services up to \$15,000 per year while serving as an executive officer and \$3,000 in the year following retirement or death. MPC's Compensation Committee believes this benefit is appropriate due to the complexities of income tax preparation for our NEOs, who may, for example, be required to make personal income tax filings in multiple states as a result of receiving MPLX LP common units.

MPC also offers enhanced annual physical health examinations to senior management, including our NEOs, to promote their health and well-being. Under this program, these officers are eligible for a comprehensive physical (generally in the form of a one-day appointment), with procedures similar to those available to all other employees under MPC's health program.

The primary use of corporate aircraft is for business purposes and must be authorized by MPC's CEO or another executive officer designated by MPC's Board or CEO. Occasionally, spouses or other guests may accompany our NEOs or other executive officers on corporate aircraft when space is available on business-related flights. When a spouse's or guest's travel does not meet the Internal Revenue Service standard for business use, the cost of that travel is imputed as income to the NEO or other executive officer. Mr. Hennigan was granted limited personal use of the aircraft when otherwise available during the first 12 months of his employment as MPLX President.

Reportable values for these perquisite programs, based on the incremental costs to MPC, are included in the "All Other Compensation" column of the "2018 Summary Compensation Table."

MPC does not provide income tax assistance or tax gross-ups on executive perquisites.

COMPENSATION GOVERNANCE

Unit Ownership Guidelines

Our Board has established unit ownership guidelines for our executive officers, including our NEOs, intended to align their long-term interests with those of our unitholders. These guidelines require the executive officers in the positions shown below to hold a specified level of MPLX common units. The targeted levels vary depending upon the executive's position and responsibilities:

Position	Number of Units to Be Held
Chairman of the Board and Chief Executive Officer	25,000
President	20,000
Executive Vice Presidents	15,000
Senior Vice Presidents	10,000
Vice Presidents	5,000

Each executive is expected to meet these guidelines within five years of his or her assumption of the applicable position. The guidelines also require that these officers hold all common units distributed in settlement of phantom units or performance units for a minimum of one year following the vesting date. As of December 31, 2018, all of our executive officers, including our NEOs, had met their ownership guidelines.

Prohibition on Derivatives and Hedging

We prohibit hedging transactions related to our units, and pledging or creating security interests in our units, including units in excess of a unit ownership guideline requirement. This ensures that our executive officers, including our NEOs, bear the full risk of MPLX LP common unit ownership.

Recoupment/Clawback Policy

Our NEOs are subject to recoupment provisions under MPC's ACB and LTI programs in the case of certain forfeiture events. In addition, the MPLX 2012 Plan provides that all awards granted thereunder will be subject to clawback or recoupment in the case of certain forfeiture events. If we are required, as a result of a determination made by the SEC or our Audit Committee, to prepare a material accounting restatement due to noncompliance with any financial reporting requirement under applicable securities laws as a result of misconduct, the Audit Committee may determine that a forfeiture event has occurred based on an assessment of whether an executive officer: (i) knowingly engaged in misconduct; (ii) was grossly negligent with respect to misconduct; (iii) knowingly failed or was grossly negligent in failing to prevent misconduct; or (iv) engaged in fraud, embezzlement or other similar misconduct materially detrimental to us.

If it is determined that a forfeiture event has occurred, an executive officer's unvested phantom units and performance units would be subject to immediate forfeiture. If a forfeiture event occurred either while the executive officer was employed, or within three years after termination of employment, and a payment has previously been made to the executive officer in settlement of performance units, we may recoup an amount in cash or units up to the amount paid in settlement of the performance units.

These recoupment provisions are in addition to the requirements under Section 304 of the Sarbanes-Oxley Act of 2002, which require the CEO and CFO to reimburse us for incentive-based or equity-based compensation, as well as any related profits received in the 12-month period prior to the filing of an accounting restatement due to noncompliance with financial reporting requirements as a result of misconduct. Additionally, all equity grants made since 2013 include provisions making them subject to any clawback provisions required by the Dodd-Frank Wall Street Reform and Consumer Protection Act, and to any other "clawback" provisions as required by law or by the applicable listing standards of the NYSE.

Compensation-Based Risk Assessment

The MPLX Committee reviews our policies and practices in compensating our service providers (including both executive officers and non-executives, if any) as they relate to our risk management profile. The MPLX Committee completed its review of our 2018 programs in February 2019, and concluded that any risks arising from our compensation policies and practices were not reasonably likely to have a material adverse effect on our financial statements.

Compensation Committee Interlocks and Insider Participation

Compensation matters are determined by Mr. Heminger, our Chairman and CEO, and the independent directors of our Board. Mr. Heminger is also an executive officer and director of MPC. During 2018, none of our other executive officers served as a member of a compensation committee or board of directors of another entity that has an executive officer serving as an independent director on our Board.

COMPENSATION COMMITTEE REPORT

Our Chairman and independent directors have reviewed and discussed the Compensation Discussion and Analysis for 2018 with management and, based on such review and discussions, recommended to the Board that the Compensation Discussion and Analysis be included in this Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

Gary R. Heminger, Chairman Michael L. Beatty Christopher A. Helms Garry L. Peiffer Dan D. Sandman J. Michael Stice John P. Surma

EXECUTIVE COMPENSATION TABLES

2018 SUMMARY COMPENSATION TABLE

The following table provides information regarding compensation for our 2018 NEOs for the years shown:

Name and Principal		Salary (a)	Bonus (b)	Stock Awards (c)(d)	Option Awards	Non-Equity Incentive Plan Compensation	Change in Pension Value and Nonqualified Deferred Compensation Earnings (f)	All Other Compensation	Total
Position Position	Year	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)	(\$)
Gary R. Heminger Chairman of the	2018	1,350,000		1,512,459	_	_	_	_	2,862,459
Board and Chief Executive Officer	2017	1,310,000	_	2,282,185	_	_	_		3,592,185
	2016	1,220,000	_	1,797,853		_	_	_	3,017,853
Pamela K.M. Beall Executive Vice	2018	540,000	_	557,058	150,007	670,000	178,266	96,657	2,191,988
President and Chief Financial Officer	2017	525,000	_	743,215	68,010	670,000	245,643	88,828	2,340,696
	2016	499,667	_	529,759	170,008	550,000	226,408	86,067	2,061,909
Michael J. Hennigan	2018	875,000	_	1,949,566	525,008	1,600,000	152,366	143,772	5,245,712
President	2017		1,000,000		_	800,000	126,322	157,086	7,513,049
Gregory S. Floerke Executive Vice	2018	506,250	_	557,058	150,007	610,000	93,153	84,350	2,000,818
President, Gathering and	2017	442,500	_	699,511	64,009	600,000	78,750	67,633	1,952,403
Processing	2016	415,000	_	_	_	425,000	62,847	55,179	958,026
John S. Swearingen Executive Vice President, Logistics and Storage	2018	389,063	_	557,058	150,007	457,500	_	61,608	1,615,236

⁽a) With respect to Mr. Heminger, amounts reflect the annualized fixed fee we pay MPC for Mr. Heminger's services under the Omnibus Agreement. With respect to Mr. Swearingen, amounts reflect the portion of his compensation that was allocated to us for 2018 (75%). With respect to the other NEOs, amounts reflect actual salary earned during the fiscal year covered. Compensation is reviewed after the end of each year, and salary increases, if any, are generally effective April 1 of the following year. See "Executive Compensation Discussion and Analysis—Elements of Compensation—Base Salary" for additional information on base salaries for 2018.

⁽b) The amount shown for Mr. Hennigan reflects a cash sign-on bonus.

⁽c) The amounts shown in these columns reflect the aggregate grant date fair value of LTI awarded in the applicable year calculated in accordance with Financial Accounting Standards Board Accounting Standards Codification 718, Compensation-Stock Compensation ("FASB ASC Topic 718"). See Item 8. Financial Statements and Supplementary Data, Note 22 for assumptions used in the calculation of the amounts related to MPLX equity for the year ended December 31, 2018 and Note 23 to MPC's financial statements included

- in its Annual Report on Form 10-K for the year ended December 31, 2018 for valuation assumptions used to determine the value of these awards.
- The maximum value of the performance units granted in 2018, assuming the highest level of performance is achieved, is: Mr. Heminger, MPLX—\$2,700,000; Ms. Beall, MPLX—\$500,000 and MPC—\$500,000; Mr. Hennigan, MPLX—\$1,750,000 and MPC—\$1,750,000; Mr. Floerke, MPLX—\$500,000 and MPC—\$500,000; and Mr. Swearingen, MPLX—\$500,000 and MPC—\$500,000.
- (e) For Mr. Swearingen, reflects 75% of the total value of his ACB award. For the other NEOs, reflects the total value of ACB awards earned for the year indicated. ACB awards are generally paid in the year following the year in which they are earned.
- The amounts shown in this column reflect the annual change in actuarial present value of accumulated benefits under the MPC retirement plans. See "Post-Employment Benefits for 2018" in this Item 11 for more information regarding the defined benefit plans and the assumptions used in the calculation of these amounts. There are no deferred compensation earnings reported in this column as the nonqualified deferred compensation plans do not provide above-market or preferential earnings.
- MPC offers limited perquisites to our NEOs which, together with contributions to defined contribution plans, comprise the amounts reported in this column. See "Executive Compensation Discussion and Analysis—Other Benefits—Perquisites" for a description of each of these items.

Name	Personal Use of Company Aircraft (\$) ^(h)	Company Physicals (\$)	Tax and Financial Planning (\$)	Company Contributions to Defined Contribution Plans (\$) (i)	Total All Other Compensation (\$)
Heminger	_		_	_	_
Beall	_	3,769	8,000	84,888	96,657
Hennigan	22,688	3,769	_	117,315	143,772
Floerke	_	3,769	3,125	77,456	84,350
Swearingen		3,769		57,839	61,608

- (h) The amounts shown in this column reflect MPC's aggregate incremental cost of personal use of corporate aircraft by our NEOs, their spouses or other guests for 2018, estimated using the average costs of operating the aircraft, such as fuel costs, trip-related maintenance, crew travel expenses, trip-related fees, storage costs, communications charges and other miscellaneous variable costs. Fixed costs, such as pilot compensation, the purchase and lease of aircraft and maintenance not related to travel are excluded from this calculation. We believe this method provides a reasonable estimate of MPC's incremental cost; however, it overstates the actual incremental cost when a flight has a primary business purpose, space is available to transport an officer or his or her guest not traveling for business purposes and no incremental cost is realized by MPC. No income tax assistance or gross-ups are provided for personal use of corporate aircraft.
- (i) The amounts shown in this column reflect MPC's contributions under our tax-qualified retirement plans and related nonqualified deferred compensation plans. For Mr. Swearingen, these amounts reflect the portion of his compensation that was allocated to us for 2018 (75%). See "Post-Employment Benefits for 2018" for more information.

2018 GRANTS OF PLAN-BASED AWARDS

The following table provides information regarding all plan-based awards, including cash-based incentive awards and equity-based awards, granted to our NEOs in 2018.

			Under No		e Payouts y Incentive ls ^(b)		ed Future Juity Ince Awards (c	ntive Plan	All Other Stock Awards: Number of Shares	Awards: Number of Securities	or Base Price of	Value of Stock and
Name	Type of Award	Grant Date	Threshold (\$)	Target	Maximum (\$)	Threshold (\$)	Target (\$)	Maximum (\$)		Underlying Options (#)	Awards (\$)	Option Awards (d) (\$)
Heminger	MPLX Phantom Units	3/1/2018							38,694			1,350,034
	MPLX Phantom Units(e)	12/20/2018							5,265			162,425
	MPLX Performance Units	3/1/2018				168,750	1,350,000	2,700,000				
Beall	MPLX Phantom Units	3/1/2018							7,166			250,022
	MPLX Performance Units	3/1/2018				31,250	250,000	500,000				_
	MPC Stock Options	3/1/2018								8,636	64.79	150,007
	MPC Restricted Stock	3/1/2018							1,544			100,036
	MPC Performance Units	3/1/2018				31,250	250,000	500,000				207,000
	MPC Annual Cash Bonus	N/A	N/A	381,500	763,000							
Hennigan	MPLX Phantom Units	3/1/2018							25,079			875,006
	MPLX Performance Units	3/1/2018				109,375	875,000	1,750,000				_
	MPC Stock Options	3/1/2018								30,225	64.79	525,008
	MPC Restricted Stock	3/1/2018							5,403			350,060
	MPC Performance Units	3/1/2018				109,375	875,000	1,750,000				724,500
	MPC Annual Cash Bonus	N/A	N/A	900,000	1,800,000							
Floerke	MPLX Phantom Units	3/1/2018							7,166			250,022
	MPLX Performance Units	3/1/2018				31,250	250,000	500,000				_
	MPC Stock Options	3/1/2018								8,636	64.79	150,007
	MPC Restricted Stock	3/1/2018							1,544			100,036
	MPC Performance Units	3/1/2018				31,250	250,000	500,000				207,000
	MPC Annual Cash Bonus	N/A	N/A	367,500	735,000							
Swearinger	n MPLX Phantom Units	3/1/2018							7,166			250,022
	MPLX Performance Units	3/1/2018				31,250	250,000	500,000				_
	MPC Stock Options	3/1/2018								8,636	64.79	150,007
	MPC Restricted Stock	3/1/2018							1,544			100,036
	MPC Performance Units	3/1/2018				31,250	250,000	500,000				207,000
	MPC Annual Cash Bonus	N/A	N/A	275,625	551,250							

- (a) The approval date for MPLX phantom unit and performance unit awards was February 28, 2018. The approval date for MPC stock options, restricted stock and performance unit awards was February 27, 2018. The approval date for Mr. Heminger's 12/20/2018 award was December 20, 2018.
- (b) Target amounts reflect the target annual incentive opportunity. No threshold amount is disclosed as MPC's Compensation Committee has discretion to award no annual incentive under the ACB program. Each NEO may generally earn a maximum of 200% of the target.
- Target amounts reflect the number of performance units granted. Each performance unit has a target value of \$1.00. The threshold for the award is the minimum possible payout of the award, which is 12.5%. The threshold is achieved when the payout percentage is 50% for one measurement period and 0% for the other three measurement periods, thus an average payout percentage of 12.5% for the performance cycle. The maximum payout for this award is 200% of target.
- Amounts reflect the total grant date fair value calculated in accordance with FASB ASC Topic 718. The Black-Scholes value used for the stock options was \$17.37 per share. The restricted stock value was based on the closing price of \$64.79 per share of MPC common stock on the grant date. The MPC performance units have a grant date fair value of \$0.83 per unit as calculated using a Monte Carlo valuation model. Assumptions used in the calculation of these amounts are included in Note 23 to MPC's financial statements included in its Annual Report on Form 10-K for the year ended December 31, 2018. The phantom unit value was based on the closing price of \$34.89 per unit of MPLX common units on the grant date. See Item 8. Financial Statements and Supplementary Data, Note 22 for assumptions used in the calculation of these amounts. No total grant date fair value for the MPLX performance units has been determined under FASB ASC Topic 718 because the MPLX Committee sets the DCF levels for these awards at the beginning of each performance year; thus, the DCF levels for the second and third performance years have not yet been set.
 (e) This award was granted to Mr. Heminger as part of the correction of an erroneous 2018 payment of his outstanding MPLX phantom unit awards, which was fully corrected in 2018 pursuant to applicable Internal
- This award was granted to Mr. Heminger as part of the correction of an erroneous 2018 payment of his outstanding MPLX phantom unit awards, which was fully corrected in 2018 pursuant to applicable Internal Revenue Service guidance. Mr. Heminger took no part in the decision to make the erroneous payment. The correction restored him to the same economic position that he would have been in had the payment not occurred.

OUTSTANDING EQUITY AWARDS AT 2018 FISCAL YEAR-END

The following table provides information regarding the outstanding equity awards held by our NEOs as of December 31, 2018.

			Option Awards (a) Stock Awards			Stock Awards			
Name	Grant Date	Number of Securities Underlying Unexercised Options Exercisable (#)	Number of Securities Underlying Unexercised Options Unexercisable (#)	Exercise		Have Not	Shares or Units of Stock That Have Not	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights that Have Not Vested (d) (#)	Shares, Units or Other Rights that
Heminger					MPLX	75,655	2,292,347	2,550,000	3,150,000
Beall	3/1/2016	11,368	5,684	34.63	3/1/2026				
	3/1/2017	1,592	3,184	50.99	3/1/2027				
	3/1/2018		8,636	64.79	3/1/2028				
		12,960	17,504		MPLX	15,798	478,679	590,000	760,000
					MPC	2,808	165,700	318,000	436,943
Hennigan	3/1/2018		30,225	64.79	3/1/2028				
		_	30,225		MPLX	126,326	3,827,678	875,000	875,000
					MPC	21,725	1,281,992	875,000	1,166,638
Floerke	3/1/2017	1,498	2,997	50.99	3/1/2027				
	3/1/2018		8,636	64.79	3/1/2028				
		1,498	11,633		MPLX	49,254	1,492,396	570,000	730,000
					MPC	1,963	115,837	314,000	430,848
Swearingen	3/1/2017	4,681	9,364	50.99	3/1/2027				
	3/1/2018		8,636	64.79	3/1/2028				
		4,681	18,000		MPLX	12,807	388,052	500,000	625,000
					MPC	2,852	168,297	450,000	638,085

⁽a) MPC stock options have a maximum term for exercise of ten years from the grant date. They generally become exercisable in one-third increments on the first, second and third anniversaries of the grant date.

⁽b) Amounts reflect the number of unvested MPLX phantom units and shares of MPC restricted stock held on December 31, 2018. Phantom units and restricted stock generally vest in one-third increments on the first, second and third anniversaries of the grant date. MPC restricted stock and MPLX phantom unit awards to our NEOs generally provide for full vesting upon termination of employment due to "Mandatory Retirement," which refers to MPC's general policy that officers retire on the first day of the month after they attain age 65. Mr. Heminger became eligible for Mandatory Retirement on October 1, 2018. Under applicable tax rules, this eligibility for Mandatory Retirement caused him to "vest" in his phantom unit awards for payroll tax purposes, notwithstanding that he continues to be employed, because on and after such dates no substantial risk of forfeiture applies to these awards. While these awards continue to be reflected in this table, the portion used to pay the associated taxes has been excluded from this table, and is instead included in the "Option Exercises and Stock Vested in 2018" table below.

	MPLA LP Phantom Units				MPC Res	ricted Stock
Name	Grant Date	Number of Unvested Units	Vesting Dates	Grant Date	Number of Unvested Shares	Vesting Dates
Heminger	3/1/2016	13,266	3/1/2019			
	3/1/2017	20,197	3/1/2019, 3/1/2020			
	3/1/2018	37,139	3/1/2019, 3/1/2020, 3/1/2020			
	12/20/2018	5,053	3/1/2019, 3/1/2020, 3/1/2020			
		75,655				
Beall	3/1/2016	2,670	3/1/2019	3/1/2016	819	3/1/2019
	3/1/2017	5,962	3/1/2019, 3/1/2020	3/1/2017	445	3/1/2019, 3/1/2020
	3/1/2018	7,166	3/1/2019, 3/1/2020, 3/1/2020	3/1/2018	1,544	3/1/2019, 3/1/2020, 3/1/2020
		15,798	-		2,808	•
Hennigan	7/1/2017	31,153	7/1/2019, 7/1/2020	7/1/2017	5,022	7/1/2019, 7/1/2020
	7/1/2017	70,094	7/1/2020	7/1/2017	11,300	7/1/2020
	3/1/2018	25,079	3/1/2019, 3/1/2020, 3/1/2020	3/1/2018	5,403	3/1/2019, 3/1/2020, 3/1/2020
	·	126,326	_		21,725	
Floerke	12/18/2015	36,476	Upon termination without caus	se		
	3/1/2017	5,612	3/1/2019, 3/1/2020	3/1/2017	419	3/1/2019, 3/1/2020
	3/1/2018	7,166	3/1/2019, 3/1/2020, 3/1/2020	3/1/2018	1,544	3/1/2019, 3/1/2020, 3/1/2020
		49,254	-		1,963	
Swearingen	3/1/2016	1,257	3/1/2019			
	3/1/2017	4,384	3/1/2019, 3/1/2020	3/1/2017	1,308	3/1/2019, 3/1/2020
	3/1/2018	7,166	3/1/2019, 3/1/2020, 3/1/2020	3/1/2018	1,544	3/1/2019, 3/1/2020, 3/1/2020

MPI Y I P Phantom Units

12.807

MPC Restricted Stock

2.852

- Amounts reflect the aggregate value of all unvested MPLX LP phantom units and MPC restricted stock held on December 31, 2018, using the MPLX closing unit price of \$30.30 and the MPC closing stock price of \$59.01 on that date.
- (d) Amounts reflect the number of unvested MPC and MPLX performance units held on December 31, 2018. The MPLX performance unit grants awarded in 2017 and 2018 have a 36-month performance cycle and are designed to settle 25% in MPLX common units and 75% in cash. Each performance unit is dollar denominated with a target value of \$1.00. Payout may vary from \$0.00 to \$2.00 per unit and will be determined (i) 50% based on MPLX's TUR as compared to the applicable peer group, which for 2017 and 2018 were: Andeavor Logistics LP, Buckeye Partners, L.P., Enbridge Energy Partners, L.P., Energy Transfer Partners, L.P., Enterprise Products Partners L.P., Magellan Midstream Partners, L.P., Phillips 66 Partners LP, Plains All American Pipeline, L.P., Valero Energy Partners LP, Western Gas Partners, LP and Williams Partners L.P., (due to industry consolidations, Enbridge Energy Partners, L.P., Energy Transfer Partners, L.P. and Williams Partners L.P. were removed from the group effective January 1, 2018) and (ii) 50% based on a DCF-per-MPLX-common-unit metric which measures the growth of MPLX's full-year DCF over the three-year performance cycle.

The MPC performance unit grants awarded in 2017 and 2018 have a 36-month performance cycle and are designed to settle 25% in MPC common stock and 75% in cash. Each performance unit is dollar denominated with a target value of \$1.00. Payout may vary from \$0.00 to \$2.00 per unit and is tied to MPC's TSR as compared to the applicable peer group, which for performance units granted in 2017 and 2018 was: Andeavor, Chevron Corporation, HollyFrontier Corporation, PBF Energy, Phillips 66, Valero Energy Corporation and the S&P 500 Energy Index (due to MPC's acquisition of Andeavor, it was removed from the group effective January 1, 2018).

		MPLX Performan	ice Units		MPC Performance Units				
Name	Grant Date	Number of Unvested Units	Performance Period Ending Date	Grant Date	Number of Unvested Units	Performance Period Ending Date			
Heminger	3/1/2017 3/1/2018	1,200,000 1,350,000	12/31/2019 12/31/2020						
		2,550,000							
Beall	3/1/2017 3/1/2018	340,000 250,000	12/31/2019 12/31/2020	3/1/2017 3/1/2018	68,000 250,000	12/31/2019 12/31/2020			
		590,000			318,000				
Hennigan	3/1/2018	875,000	12/31/2020	3/1/2018	875,000	12/31/2020			
		875,000			875,000				
Floerke	3/1/2017 3/1/2018	320,000 250,000	12/31/2019 12/31/2020	3/1/2017 3/1/2018	64,000 250,000	12/31/2019 12/31/2020			
		570,000			314,000				
Swearingen	3/1/2017 3/1/2018	250,000 250,000	12/31/2019 12/31/2020	3/1/2017 3/1/2018	200,000 250,000	12/31/2019 12/31/2020			
		500,000			450,000				

⁽e) Amounts for MPC reflect the aggregate value of all performance units held on December 31, 2018, assuming a payout of \$1.5238 per unit for the March 1, 2017 award and \$1.3333 per unit for the March 1, 2018 award, which is the next higher performance achievement that exceeds the performance for these grants' performance period that ended December 31, 2018. Amounts shown for MPLX reflect the aggregate value of all performance units held on December 31, 2018, assuming a payout of \$1.5000 per unit for the March 1, 2017 award and \$1.0000 per unit for the March 1, 2018 award, which is the next higher performance achievement that exceeds the performance for these grants' performance period that ended December 31, 2018.

OPTION EXERCISES AND UNITS VESTED IN 2018

The following table provides information regarding MPLX phantom units and MPC restricted stock that vested in 2018.

		Stock Awards	
Name		Number of Units/Shares Acquired on Vesting (a) (#)	Value Realized on Vesting (b) (\$)
Heminger	MPLX	31,969	1,097,278
Beall	MPLX	5,996	207,821
	MPC	1,932	125,310
Hennigan	MPLX	15,576	528,961
	MPC	2,511	175,268
Floerke	MPLX	11,630	383,857
	MPC	20,070	1,197,470
Swearingen	MPLX	3,693	127,999
	MPC	3,086	200,158

⁽a) As discussed in footnote (b) to the "Outstanding Equity at 2018 Fiscal Year-End" table, during 2018, certain awards held by Mr. Heminger vested for income tax and payroll tax (e.g., FICA taxes) purposes due to his retirement eligibility under the applicable plans and agreements. Amounts in this column for Mr. Heminger include 3,167 MPLX phantom units used to pay the associated taxes.

⁽b) Amounts reflect the actual pre-tax gain realized upon vesting of MPLX phantom units and MPC restricted stock, which is the fair market value of the units or stock on the vesting date.

POST-EMPLOYMENT BENEFITS FOR 2018

Pension Benefits

MPC provides tax-qualified retirement benefits to its employees, including our NEOs, under the Marathon Petroleum Retirement Plan. In addition, MPC sponsors the Marathon Petroleum Excess Benefit Plan for the benefit of a select group of management or highly compensated employees.

2018 Pension Benefits Table

The following table reflects the actuarial present value of accumulated benefits payable to our NEOs under the Marathon Petroleum Retirement Plan and the defined benefit portion of the Marathon Petroleum Excess Benefit Plan as of December 31, 2018. These values have been determined using actuarial assumptions consistent with those used in MPC's financial statements.

Name	Plan Name	Number of Years of Credited Service (a)	Present Value of Accumulated Benefit (b) (\$)	Payments During Last Fiscal Year (\$)
Beall	Marathon Petroleum Retirement Plan Marathon Petroleum Excess Benefit Plan	16.67 years 16.67 years		
Hennigan	Marathon Petroleum Retirement Plan Marathon Petroleum Excess Benefit Plan	1.58 years 1.58 years		<u> </u>
Floerke	Marathon Petroleum Retirement Plan Marathon Petroleum Excess Benefit Plan	3.0 years 3.0 years		
Swearingen (c)	Marathon Petroleum Retirement Plan Marathon Petroleum Excess Benefit Plan	37.58 years 37.58 years		

- (a) Represents the number of years the NEO has participated in the plan. However, plan participation service used for the purpose of calculating each participant's benefit under the Marathon Petroleum Retirement Plan legacy final average pay formula was frozen as of December 31, 2009.
- (b) The present value of accumulated benefit for the Marathon Petroleum Retirement Plan was calculated assuming a discount rate of 4.20%, the RP2000 mortality table for lump sums, a 96% lump sum election rate and retirement at age 62 (or current age, if later). In accordance with the Marathon Petroleum Retirement Plan provisions and actuarial assumptions, the discount rate for lump sum calculations varied between 0.75% to 1.50% based on anticipated year of retirement.
- (c) Dollar values for Mr. Swearingen reflect the portion of his compensation that was allocated to us for 2018 (75%).

Marathon Petroleum Retirement Plan

In general, our NEOs are immediately eligible to participate in the Marathon Petroleum Retirement Plan, which is a tax-qualified defined benefit retirement plan that is primarily designed to provide participants with income after retirement. Prior to January 1, 2010, the monthly benefit under the Marathon Petroleum Retirement Plan was equal to the following formula:

We refer to this formula as the Marathon legacy benefit formula. Effective January 1, 2010, the Marathon legacy benefit formula was amended to (i) cease future accruals of additional years of participation, and (ii) as applied to

eligible NEOs, cease further compensation updates. No more than 37.5 years of participation may be recognized under the Marathon legacy benefit formula. Eligible earnings under the Marathon Petroleum Retirement Plan include, but are not limited to, pay for hours worked, pay for allowed hours, military leave allowance, commissions, 401(k) contributions to the Marathon Petroleum Thrift Plan and incentive compensation bonuses. Age continues to be updated under the Marathon legacy benefit formula.

Benefit accruals for years beginning in 2010 are determined under a cash balance formula. Under the cash balance formula, each year plan participants receive pay credits equal to a percentage of compensation based on their plan points. Plan points equal the sum of a participant's age and cash balance service:

- Participants with less than 50 points receive a 7% pay credit;
- Participants with at least 50 but less than 70 points receive a 9% pay credit; and
- Participants with 70 or more points receive an 11% pay credit.

Participants in the Marathon Petroleum Retirement Plan become fully vested upon the completion of three years of vesting service. Normal retirement age for both the Marathon legacy benefit and cash balance formulas is 65. However, retirement-eligible participants are able to retire and receive an unreduced benefit under the Marathon legacy benefit formula after reaching age 62.

The forms of benefit available under the Marathon Petroleum Retirement Plan include various annuity options and a lump sum distribution option. Participants are eligible for early retirement upon reaching age 50 and completing 10 years of vesting service. If an employee retires between the ages of 50 and 62 with sufficient vesting service, the amount of benefit under the Marathon legacy benefit formula is reduced as follows:

Age at Retirement	62	61	60	59	58	57	56	55	54	53	52	51	50
Early Retirement Factor	100%	97%	94%	91%	87%	83%	79%	75%	71%	67%	63%	59%	55%

There are no early retirement subsidies under the cash balance formula. Of our NEOs providing a majority of their services to our business, only Ms. Beall and Mr. Swearingen have accrued a benefit under the Marathon legacy benefit formula. Ms. Beall and Mr. Swearingen are currently eligible for early retirement benefits under the Marathon legacy benefit formula.

Under the cash balance formula, plan participants receive pay credits based on age and cash balance service. For 2018, Ms. Beall and Mr. Swearingen received pay credits equal to 11% of compensation, which is the highest level of pay credit available under the plan. Messrs. Hennigan and Floerke received pay credits equal to 9% of compensation.

Marathon Petroleum Excess Benefit Plan (Defined Benefit Portion)

The Marathon Petroleum Excess Benefit Plan is an unfunded, nonqualified deferred compensation plan maintained for the benefit of a select group of management or highly compensated employees. This Plan generally provides benefits that participants, including our NEOs, would have otherwise received under the tax-qualified Marathon Petroleum Retirement Plan were it not for Internal Revenue Code limitations. For our NEOs, eligible earnings under this Plan include the items listed above, excluding bonuses, for the Marathon Petroleum Retirement Plan, as well as deferred compensation contributions, for the highest consecutive 36-month period over the 10-year period up to December 31, 2012. This Plan also provides an enhancement for executive officers using the three highest bonuses earned over the 10-year period up to December 31, 2012, instead of the consecutive bonus formula in place for non-officers. MPC believes this enhancement is appropriate in light of the greater volatility of executive officer bonuses. As Messrs. Hennigan and Floerke have not accrued a benefit under the Marathon legacy benefit formula, they are not eligible for this enhancement.

Marathon Petroleum Thrift Plan

The Marathon Petroleum Thrift Plan is a tax-qualified, defined contribution retirement plan. In general, all of MPC's employees, including our NEOs, are immediately eligible to participate in the Thrift Plan. The purpose of the Thrift Plan is to assist employees in maintaining a steady program of savings to supplement their retirement income and to meet other financial needs.

The Thrift Plan allows eligible employees, such as our NEOs, to make elective deferral contributions to their plan on a pre-tax or after-tax "Roth" basis from 1% to a maximum of 75% of their Plan-considered gross pay, with such gross pay limited to the applicable Internal Revenue Code annual compensation limit (\$275,000 for 2018). Employer matching contributions are made on such elective deferrals at a rate of 117% up to a maximum of 6% of an employee's plan-considered gross pay. All employee elective deferrals and all employer matching contributions made are fully vested.

NONQUALIFIED DEFERRED COMPENSATION

The following table provides information regarding MPC's nonqualified savings and deferred compensation plans.

Name	Plan		MPC Contributions in Last Fiscal Year (\$) ^(b)	Aggregate Earnings in Last Fiscal Year (\$)	Aggregate Withdrawals/ Distributions (\$)(c)	
Heminger	MPLX LP 2012 Incentive Compensation Plan ^(d)	_	3,003,635	_	108,919	2,529,330
Beall	Marathon Petroleum Excess Benefit Plan Marathon Petroleum Deferred Compensation Plan	_ _	65,583	3,395 (28,037)	_	139,328 938,751
Hennigan	Marathon Petroleum Deferred Compensation Plan	334,231	98,010	(77,818)	_	748,415
Floerke	Marathon Petroleum Deferred Compensation Plan	_	58,151	(13,536)	_	136,103
Swearingen ^(e)	Marathon Petroleum Excess Benefit Plan Marathon Petroleum Deferred	_	43 361	3,369	_	138,248
	Compensation Plan		43,361	(14,807)		254,51

⁽a) Amounts shown are also included in the "Salary" and "Non-Equity Incentive Plan Compensation" columns of the "2018 Summary Compensation Table."

- As discussed in footnote (b) to the "Outstanding Equity Awards at 2018 Fiscal Year-End" table, during 2018, certain awards held by Mr. Heminger vested for income tax and payroll tax (e.g., FICA taxes) purposes due to his retirement eligibility under the applicable plans and agreements. 3,167 MPLX phantom units were withheld for such taxes as of December 20, 2018. Using the average of the high and low MPLX common unit prices on that date (\$31.26), the taxes totaled \$99,000. As of December 31, 2018, Mr. Heminger had 75,655 vested, but as yet unpaid, MPLX phantom units.
- (d) Amounts represent the value of Mr. Heminger's MPLX phantom units and accrued distribution equivalents. The Company Contributions amount is calculated using the average of the high and low MPLX common unit prices on his October 1, 2018 (\$35.24) and December 20, 2018 (\$31.26) vesting dates. The Aggregate Balance amount is calculated using the December 31, 2018 closing price of MPLX common units (\$30.30).
- (e) Amounts for Mr. Swearingen reflect the portion of his compensation that was allocated to us for 2018 (75%).

⁽b) Amounts shown are also included in the "All Other Compensation" column of the "2018 Summary Compensation Table."

Marathon Petroleum Excess Benefit Plan (Defined Contribution Portion)

Certain highly compensated non-officer employees and, prior to January 1, 2006, executive officers who elected not to participate in the Marathon Petroleum Deferred Compensation Plan (described below), are eligible to receive defined contribution accruals under the Marathon Petroleum Excess Benefit Plan. The defined contribution formula in the Marathon Petroleum Excess Benefit Plan allows eligible employees to receive employer matching contributions equal to the amount they would have otherwise received under the tax-qualified Marathon Petroleum Thrift Plan were it not for Internal Revenue Code limitations.

Defined contribution accruals in the Marathon Petroleum Excess Benefit Plan are credited with interest equal to that paid in the "Marathon Stable Value Fund" investment option of the Marathon Petroleum Thrift Plan. The annual rate of return on this investment option for the year ended December 31, 2018, was 2.49%. All distributions from the plan are paid in the form of a lump sum following the participant's separation from service.

Our NEOs no longer participate in the defined contribution formula of the Marathon Petroleum Excess Benefit Plan; all nonqualified employer matching contributions for our NEOs now accrue under the Marathon Petroleum Deferred Compensation Plan.

Marathon Petroleum Amended and Restated Deferred Compensation Plan

The Marathon Petroleum Amended and Restated Deferred Compensation Plan (referenced in the "Non-Qualified Deferred Compensation" table above as the "Marathon Petroleum Deferred Compensation Plan") is an unfunded nonqualified deferred compensation plan maintained for the benefit of a select group of management or highly compensated employees. The Plan provides participants, including our NEOs, the opportunity to supplement their retirement savings by deferring up to 20% of their salary and bonus each year in a tax-advantaged manner. Participant deferral elections are made in December of each year for amounts to be earned in the following year and are irrevocable. Participants are fully vested in their deferrals under the Plan. The Plan credits a matching contribution on a participant's deferrals equal to the match percentage under the Marathon Petroleum Thrift Plan, which is currently 117% of deferrals. The Plan also credits an amount to a participant equal to the employer matching contributions the participant would have otherwise received under the Marathon Petroleum Thrift Plan were it not for Internal Revenue Code limitations or any compensation limit imposed on deferrals under the Thrift Plan. Participants are fully vested in these matching contributions under the Plan. Plan participants may make notional investments of their notional Plan accounts from among certain of the investment options offered to participants under the Marathon Petroleum Thrift Plan, and participants' notional Plan accounts are credited with notional earnings and losses based on the result of those investment elections. Plan participants generally receive payment of their Plan benefits in a lump sum following separation from service.

Section 409A Compliance

All of MPC's nonqualified deferred compensation plans in which our NEOs participate are intended to comply with, or be exempt from, Section 409A of the Internal Revenue Code. As a result, distribution of amounts subject to Section 409A may be delayed for six months following retirement or other separation from service where the participant is considered a "specified employee" for purposes of Section 409A. All of our NEOs are "specified employees" for purposes of Section 409A.

POTENTIAL PAYMENTS UPON A TERMINATION OR CHANGE IN CONTROL

The following table provides information regarding the amount of compensation payable to each of our NEOs under the specified termination scenarios, assuming that the applicable termination event occurred on

December 31, 2018, based on the plans and agreements in place on that date. The actual payments to which an NEO would be entitled may only be determined based upon the actual occurrence and circumstances surrounding the termination.

Scenario	Severance ^(a) (\$)	Additional Pension Benefits ^(b) (\$)	Accelerated Options(c) (\$)		Accelerated Performance Units ^(e) (\$)	Other Benefits ^(f) (\$)	Total (\$)
Retirement(g)	_	_	_	2,292,347	2,550,000	_	4,842,347
Involuntary Termination without Cause or with Good Reason	_	_	_	_	_	_	_
Cause	_	_	_	_	_	_	_
Qualified Termination Death	_	_	_	2,292,347	2,550,000	_	4,842,347
Retirement ^(g) Resignation ^(g) Involuntary Termination without Cause or with Good		=	164,112			_	164,112
Reason Involuntary Termination for	_	_	_	_	_	_	_
Change in Control with							
Qualified Termination Death	3,200,806	2,394,185	164,112 164,112	644,379 644,379	908,000 908,000	46,085	7,357,567 1,716,491
Retirement ^(g) Resignation ^(g) Involuntary Termination without Cause or with Good	_	_			_	_	=
Reason Involuntary Termination for	_	_	_	_	_	_	_
Cause Change in Control with Qualified Termination Death	5,100,000	_ 	_ _ _	5,109,670 5,109,670	1,750,000 1,750,000	54,950 —	12,014,620 6,859,670
Retirement ^(g) Resignation ^(g) Involuntary Termination	=	=	_	1,105,223	_	_	1,105,223
Reason	_	_	_	1,105,223	_	_	1,105,223
Cause Change in Control with	_	_	_	_	_	_	_
Qualified Termination Death	3,375,000		24,036 24,036	1,608,233 1,608,233	884,000 884,000	51,332	5,942,601 2,516,269
Retirement ^(g) Resignation ^(g) Involuntary Termination without Cause or with Good		=	75,099 —	_	_	Ξ	75,099 —
Reason Involuntary Termination for	_	_	_	_	_	_	_
Cause Change in Control with Qualified Termination Death	3,375,000	6,834,165	75,099 75,099	556,349 556.349	950,000 950,000	45,890	
	Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination for Cause Change in Control with Qualified Termination Death Retirement(g) Resignation(g) Involuntary Termination for Cause Change in Control with Qualified Termination without Cause or with Good Reason Involuntary Termination Death Retirement(g) Resignation(g) Involuntary Termination on Death Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination without Cause or with Good Reason Involuntary Termination Death Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination without Cause or with Good Reason Involuntary Termination without Cause or with Good Reason Involuntary Termination for Cause Change in Control with Qualified Termination Death Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination Death Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination poetath Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination without Cause or with Good Reason Involuntary Termination	Scenario (\$) Retirement(g) — Resignation(g) — Involuntary Termination without Cause or with Good Reason — Involuntary Termination for Cause — Change in Control with Qualified Termination without Cause or with Good Reason — Involuntary Termination Without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination for Cause — Change in Control with Qualified Termination Death — Retirement(g) — Resignation(g) — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Retirement(g) — Resignation(g) — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination without Cause or with Good Reason — Involuntary Termination Involuntary	Retirement(g) Resignation(g) Involuntary Termination without Cause or with Good Reason Involuntary Termination Without Cause or with Good Resignation(g) Retirement(g) Resignation(g) Resi	Scenario Severance(a) (\$) Benefits(b) (\$) Options(c) (\$) Retirement(a) — — — Resignation(a) — — — Involuntary Termination without Cause or with Good Reason — — — Involuntary Termination for Cause — — — — Change in Control with Qualified Termination — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — — —	Scenario	Seconario Severance	Seconario Severance' Benefits' Severance' Severance Se

^(a) Under the MPLX LP Executive Change in Control Severance Benefits Plan, as further described below, cash severance will only be paid upon a change in control if the NEO experiences a Qualified Termination. If the Qualified Termination occurs within three years prior to the date the officer reaches age 65, the NEO's

benefit will be limited to a pro rata portion of the benefit. The NEO's benefit is calculated using a fraction equal to the number of full and partial months existing between the Qualifying Termination and the 65th birthday divided by 36 months. As Mr. Heminger attained age 65 in September 2018, his cash severance benefits have been reduced to zero. Ms. Beall's benefit has been reduced as she is within three years of reaching age 65.

- Pension benefits for our NEOs are reflected in the "2018 Pension Benefits Table" above. Amounts in this column represent additional pension benefits attributable solely to the final average pay formula in the Executive Change in Control Severance Benefits Plan. The incremental retirement benefits included in these amounts were calculated using the following assumptions: individual life expectancies using the RP2000 Combined Healthy Table weighted 75% male and 25% female; a discount rate of 1.00% for NEOs who are retirement eligible (taking into account the additional three years of age and service credit) and 1.00% for our NEOs who are not retirement eligible; the current lump-sum interest rate for the relevant plans; and a lump-sum form of benefit. Health and welfare plans reflect the incremental cost of coverage under the policy using the assumptions used for financial reporting purposes under generally accepted accounting principles in the U.S. Only Mr. Swearingen and Ms. Beall are eligible for this enhanced benefit.
- Vesting of stock options is accelerated upon retirement or a change in control with a Qualified Termination. Amounts shown reflect the value that would be realized if accelerated stock options were exercised on December 31, 2018, taking into account the spread (if any) between the options' exercise prices and the closing price of MPC common stock on December 31, 2018 (\$59.01).
- (d) Vesting of restricted stock is accelerated upon a change in control with a Qualified Termination. Amounts shown reflect the value that would be realized if MPC restricted stock and MPLX phantom unit awards vested on December 31, 2018, taking into account the closing price of MPC common stock (\$59.01) and MPLX LP common units (\$30.30) on December 31, 2018. In the event of Mr. Floerke's termination of employment for any reason other than for cause, the unvested MPLX phantom units he received as part of his retention award in 2015 will vest and become payable.
- (e) In the event of a change in control and a Qualified Termination, unvested performance units will vest and be paid out based on actual performance for the period from the grant date to the change in control date, and target performance for the period from the change in control date to the end of the performance cycle. Amounts shown reflect the MPC and MPLX performance unit target vesting amounts that would be payable in the event of a change in control with each performance unit having a target value of \$1.00.
- Includes 36 months of continued health, dental and life insurance coverage. In the event of death, life insurance would be paid out to the estates of certain of our NEOs in the following amounts: Ms. Beall, \$1.05 million; Mr. Hennigan, \$1.6 million; Mr. Floerke, \$0.9 million; Mr. Swearingen, \$1 million.
- (g) Messrs. Heminger and Swearingen and Ms. Beall are currently eligible to retire under MPC's retirement plan; thus, amounts shown for them reflect retirement rather than resignation. Messrs. Hennigan and Floerke were not eligible to retire as of December 31, 2018; thus, amounts shown for them reflect the compensation they would receive upon their voluntary resignation.

Change in Control Plans

Our NEOs participate in two change-in-control severance plans: the Marathon Petroleum Corporation Amended and Restated Executive Change in Control Severance Benefits Plan ("MPC CIC Plan") and the MPLX LP Executive Change in Control Severance Benefits Plan ("MPLX CIC Plan"). While our NEOs participate in both plans, they are not entitled to receive benefits under both plans as a result of the same change-in-control event; rather, in the event of a change in control under both plans, our NEOs would receive the greater of the benefits provided by the plans. The plans are designed to pay benefits only upon a change in control and a Qualified Termination. A Qualified Termination generally occurs when an NEO separates from service from our affiliates or us in connection with, or within two years after, a change in control unless such separation is:

- due to death or disability;
- for cause;

- voluntary, unless the NEO has good reason (defined as a reduction in the NEO's roles, responsibilities, pay or benefits, or the NEO being required to relocate more than 50 miles from his or her current location); or
- on or after the date the NEO attains age 65.

MPC CIC Plan

Upon a change in control of MPC and a Qualified Termination, each NEO is eligible to receive:

- a cash payment of up to three times the sum of the NEO's current annualized base salary plus three times the highest bonus paid in the three years before the termination or change in control;
- life and health insurance benefits for up to 36 months after termination at the lesser of the current cost or the active employee cost;
- an additional three years of service credit and three years of age credit for purposes of retiree health and life insurance benefits;
- a cash payment equal to the actuarial equivalent of the difference between amounts receivable by the NEO under the final average pay formula in our pension plans and those that would be payable if: (i) the NEO had an additional three years of participation service credit; (ii) the NEO's final average pay were the higher of the NEO's salary at the time of the change in control event or Qualified Termination plus the NEO's highest annual bonus from the preceding three years (for purposes of determining early retirement commencement factors, the NEO is credited with three additional years of vesting service and three additional years of age);
- a cash payment equal to the difference between amounts receivable under our tax-qualified and nonqualified defined contribution type retirement and deferred compensation plans and amounts that would have been received if the NEO's defined contribution plan account had been fully vested; and
- accelerated vesting of all outstanding MPC LTI awards.

MPLX CIC Plan

Upon a change in control of MPLX and a Qualified Termination, each NEO is eligible to receive:

- a cash payment of up to three times the sum of the NEO's current annualized base salary plus three times the highest bonus paid in the three years before the termination or change in control;
- life and health insurance benefits for up to 36 months after termination at the active employee cost;
- an additional three years of service credit and three years of age credit for purposes of retiree health and life insurance benefits:
- a cash payment equal to the actuarial equivalent of the difference between amounts receivable by the NEO under the final average pay formula in our pension plans and those that would be payable if: (i) the NEO had an additional three years of participation service credit; (ii) the NEO's final average pay were the higher of the NEO's salary at the time of the change-in-control event or Qualified Termination plus the NEO's highest annual bonus from the preceding three years (for purposes of determining early retirement commencement factors, the NEO is credited with three additional years of vesting service and three additional years of age); and (iii) the NEO's pension had been fully vested; and
- a cash payment equal to the difference between amounts receivable under our tax-qualified and nonqualified defined contribution type retirement and deferred compensation plans and amounts that would have been received if the NEO's defined contribution plan account had been fully vested.

NEOs who receive an offer for comparable employment from an acquirer or successor entity in the change in control will not be eligible to receive benefits under the MPLX CIC Plan.

The MPLX CIC Plan also provides that NEOs who incur a Qualified Termination in connection with a change in control of MPLX or who separate from service with MPLX as a result of the change-in-control transaction (i.e., where the NEO remains employed with MPC but no longer provides services to MPLX) will become fully vested in all outstanding MPLX LTI awards. Performance units will vest and be paid out based on actual performance for the period from the grant date to the change in control date, and target performance for the period from the change in control date to the end of the performance cycle. In addition, if an NEO incurs a Qualified Termination, the NEO will become fully vested in all outstanding MPC LTI awards, provided that performance-based awards remain subject to the attainment of the applicable performance goals at the end of the performance cycle.

Retirement

MPC's employees, including our NEOs, are eligible for retirement once they reach age 50 and have at least 10 years of vesting service with MPC or its subsidiaries. As of December 31, 2018, Messrs. Heminger and Swearingen and Ms. Beall were retirement eligible. If an NEO retires on or after July 1 of the performance year, eligibility for a bonus under MPC's ACB program is at the discretion of MPC's Compensation Committee. Upon retirement, our NEOs are entitled to receive their vested benefits that have accrued under MPC's employee and executive benefit programs. For more information about these retirement and deferred compensation programs, see "Pension Benefits" and "Nonqualified Deferred Compensation."

In addition, upon retirement, unvested MPC stock options held by our NEOs become exercisable according to the grant terms. Unvested MPC restricted stock awards and MPLX phantom units are forfeited upon retirement (except in the case of a mandatory retirement at age 65, at which time they vest in full). For performance units, if an NEO has worked more than nine months of the performance cycle, awards may be vested on a prorated basis at the discretion of the MPLX Committee (the MPC Compensation Committee, in the case of MPC performance units). If an NEO retires under MPC's mandatory retirement policy, outstanding performance units will fully vest; however, payout will occur at the end of the full 36-month performance cycle based on the certified results of the performance cycle.

Other Termination

Neither MPC nor we generally enter into employment or severance agreements with our NEOs. An NEO whose employment is terminated without cause, or who terminates his employment with good reason, is eligible for the same termination allowance plan available to all other MPC employees, which would pay a severance between eight and 62 weeks of salary based either on service or level of base salary. Such payments are at the discretion of MPC's Compensation Committee.

Upon voluntary termination of employment by an NEO, or involuntary termination for cause, LTI awards, including vested but unexercised MPC options, generally are forfeited unless provided otherwise in the applicable award agreement. Upon involuntary termination of an NEO without cause, vested MPC options are exercisable for 90 days following the termination date.

Death or Disability

In the event of death or disability, our NEOs (or their beneficiaries) are entitled to the vested benefits they have accrued under MPC's employee benefits programs. In the event of the death of an NEO during the ACB performance period, unless otherwise determined by MPC's Compensation Committee, a target bonus will be paid. LTI awards immediately vest in full upon death, with performance units vesting at the target level. In the event of disability, LTI awards continue to vest as if the NEO remained employed for up to 24 months during the period of disability.

CEO PAY RATIO

We do not determine the total compensation of our chief executive officer or of any of the other personnel responsible for managing and operating our business, all of whom are employed by MPC and not by our general partner or us. Because we do not directly employ any employees and do not determine or pay total compensation to the employees of MPC who manage and operate our business, we do not have a median employee whose total compensation can be compared to the total compensation of our chief executive officer.

DIRECTOR COMPENSATION

Officers or employees of our general partner or MPC who also serve as our directors do not receive additional compensation for their service as our director. Directors who are not officers or employees of our general partner or MPC receive compensation as "non-employee directors."

Compensation Program for Non-Employee Directors

Following is the compensation package established for our non-employee directors for 2018:

Role	Cash Retainer (\$)	Deferred Phantom Unit Equity Award (\$)	Lead Director Retainer (\$)	Committee Chair Retainer (\$)	Total (\$)
Lead Director	87,500	87,500	15,000	_	190,000
Audit Committee Chair	87,500	87,500	_	15,000	190,000
Conflicts Committee Chair	87,500	87,500	_	15,000	190,000
Other Committee Chair	87,500	87,500	_	7,500	182,500
All Other Directors	87,500	87,500	_	_	175,000

Cash retainer, lead director and committee chair fees are paid in cash in equal quarterly installments at the beginning of each calendar quarter. Members of the Conflicts Committee also receive a meeting fee of \$1,500 for each Conflicts Committee meeting attended in excess of six meetings per year.

Phantom unit awards are granted in equal quarterly installments at the beginning of each calendar quarter. They are not subject to any risk of forfeiture once granted and are automatically deferred until departure from the Board, at which time they are settled in common units.

Under MPC's matching gifts program, non-employee directors may elect to have MPC match up to \$10,000 of their contributions to certain tax-exempt educational institutions each year. The annual limit is applied based on the date of the director's gift to the institution. Due to processing delays, the actual amount paid out on behalf of a director may exceed \$10,000 in a given year.

We indemnify our directors for any actions associated with being a director to the fullest extent permitted under Delaware law, and reimburse them for all expenses incurred while serving as a director.

2019 Program Changes

In October 2018, following a presentation and discussion with Pay Governance, LLC, our CEO and Chairman recommended, and the Board determined, to make certain changes to the non-employee director compensation program to more closely align with market data. The following table shows the changes in compensation, effective January 1, 2019.

Compensation Component	2018 (\$)	2019 (\$)
Cash Retainer	87,500	90,000
Deferred Phantom Unit Equity Award	87,500	110,000
Lead Director Retainer	15,000	15,000
Audit Committee Chair Retainer	15,000	15,000
Conflicts Committee Chair Retainer	15,000	15,000
MLP Representative MPC Board Observer Retainer	_	62,500

2018 Director Compensation Table

The following table shows compensation earned by or paid to our non-employee directors during 2018.

Name	Fees Earned or Paid in Cash (\$)	Unit Awards (a) (\$)	All Other Compensation (b) (\$)	Total (\$)
Michael L. Beatty	87,500	87,500	10,000	185,000
David A. Daberko(c)	27,885	27,885	_	55,770
Christopher A. Helms	102,500	87,500	_	190,000
Garry L. Peiffer	102,500	87,500	1,000	191,000
Dan D. Sandman	102,500	87,500	10,000	200,000
Frank M. Semple ^(d)	103,125	87,500	_	190,625
J. Michael Stice ^(e)	59,856	59,856	_	119,712
John P. Surma	87,500	87,500	_	175,000

- (a) Amounts reflect the aggregate grant date fair value of phantom units, calculated in accordance FASB ASC Topic 718. Non-employee directors generally received quarterly grants of phantom units with a grant date fair value of \$21,875. Mr. Daberko's quarterly grant was prorated for the second quarter due to his retirement, resulting in a grant date fair value for that award of \$6,010. Mr. Stice joined our board during the second quarter and received a prorated award of phantom units with a grant date fair value of \$16,106. All phantom units are deferred until departure from the Board, and distribution equivalents in the form of additional phantom unit awards are credited to each director's deferred account as and when distributions are paid. The aggregate number of phantom units in respect of Board service outstanding for each non-employee director as of December 31, 2018 is: Messrs. Helms, Sandman, and Surma, 14,048; Mr. Peiffer, 11,222; Mr. Beatty, 8,352; Mr. Semple, 5,845; and Mr. Stice, 1,777.
- (b) Reflects contributions made to educational institutions under MPC's matching gifts program.
- (c) Mr. Daberko retired from the Board effective April 25, 2018. Following his retirement, in July 2018, Mr. Daberko received a distribution of MPLX common units related to his Board service from his deferred equity account valued at \$399,868, and cash in lieu of a fractional MPLX common unit in the amount of \$5.
- (d) Mr. Semple was appointed as our Representative Observer to attend certain MPC Board and committee meetings, a role in which he acts as a liaison between the MPC Board and us, effective October 1, 2018; accordingly, his fees reflect the prorated retainer he received for his service during that period.
- (e) Mr. Stice was elected to the Board effective April 25, 2018.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

Security Ownership of Certain Beneficial Owners

The following table sets forth information as to each unitholder of whom we are aware that, based on filings with the SEC, beneficially owns 5% or more of our outstanding common units as of December 31, 2018:

Name and Address of Beneficial Owner	Number of Common Units Representing Limited Partner Interests	Percent of Common Units Representing Limited Partner Interests (a)
Marathon Petroleum Corporation ^(b) 539 S. Main Street Findlay, Ohio 45840	504,701,934	63.6%

⁽a) Based on 794,158,848 common units representing limited partner interests ("MPLX LP common units") outstanding on February 15, 2019.

⁽b) The 504,701,934 MPLX LP common units are directly held by MPLX Logistics Holdings LLC, MPC Investment LLC and MPLX GP LLC. Marathon Petroleum Corporation ("MPC") is the ultimate parent company of MPLX Logistics Holdings LLC, MPC Investment LLC and MPLX GP LLC and may be deemed to beneficially own the MPLX LP common units directly held by these entities. MPC Investment LLC owns all of the membership interests in MPLX GP LLC and MPLX Logistics Holdings LLC, and MPC owns all of the membership interests in MPC Investment LLC.

Security Ownership of Directors and Executive Officers

The following table sets forth the number of our common units and shares of MPC common stock beneficially owned as of January 31, 2019, except as otherwise noted, by each director and NEO, and by all directors and executive officers as a group. The address for each person named below is c/o MPLX LP, 200 East Hardin Street, Findlay, Ohio 45840. Unless otherwise indicated, to our knowledge, each person or member of the group listed has sole voting and investment power with respect to the securities shown, and none of the shares or units shown is pledged as security. As of January 31, 2019, there were 794,105,445 MPLX common units outstanding (including 504,701,934 common units held by MPC and its affiliates) and 676,152,130 shares of MPC common stock outstanding.

	Amount and Nature of	Percent Outstand		
Name of Beneficial Owner	MPLX Common Units	MPC Common Stock	MPLX	MPC
Pamela K.M. Beall	35,955 ^(a)	125,226 ^(f)	*	*
Michael L. Beatty	36,618 ^(b)		*	*
Gregory S. Floerke	77,217 ^(a)	$20,052^{(f)}$	*	*
Gregory J. Goff	11,953 ^(c)	$2,035,418^{(c)(f)(g)}$	*	*
Timothy T. Griffith	30,438 ^(a)	280,749 ^(f)	*	*
Christopher A. Helms	25,943 ^(b)	_	*	*
Gary R. Heminger	239,270 ^{(d)(e)}	$3,065,847^{(f)(h)}$	*	*
Michael J. Hennigan	135,396 ^(a)	33,502 ^(f)	*	*
Garry L. Peiffer	43,814 ^{(b)(e)}	63,394 ^(h)	*	*
Dan D. Sandman	58,943 ^(b)	_	*	*
Frank M. Semple	583,940 ^{(b)(c)(e)}	4,707 ⁽ⁱ⁾	*	*
J. Michael Stice	4,370 ^{(b)(e)}	4,837 ⁽ⁱ⁾	*	*
John P. Surma	25,300 ^(b)	43,410 ^{(h)(i)}	*	*
John S. Swearingen	20,284 ^(a)	221,792 ^(f)	*	*
Donald C. Templin	89,522 ^{(a)(c)}	581,422 ^(f)	*	*
All current Directors and Executive Officers as a				
group (17 individuals)	1,447,414 ^(a)	6,568,250 ^(f)	*	*

- * Less than 1% of common units or common shares outstanding, as applicable.
- (a) Includes phantom unit awards, which may be forfeited under certain conditions, as follows: Ms. Beall, 15,798; Mr. Floerke, 49,254; Mr. Griffith, 14,923; Mr. Hennigan, 126,326; Mr. Swearingen, 12,807; Mr. Templin, 41,931; all other executive officers, 22,882.
- (b) Includes phantom unit awards, which settle in common units upon a director's retirement from service on the Board, as follows: Mr. Beatty, 9,248; Mr. Helms, 14,943; Mr. Peiffer, 12,117; Mr. Sandman, 14,943; Mr. Semple, 7,646; Mr. Stice, 3,670; Mr. Surma, 17,800.
- (c) Includes shares of common stock or common units, as applicable, held by or with spouse, with spouse as co-trustee, or by trust for the benefit of spouse.
- (d) Includes 75,655 phantom unit awards, which are fully vested and will settle in common units at the end of the applicable performance period.
- (e) Includes common units indirectly beneficially held in trust as follows: Mr. Heminger, 131,915; Mr. Peiffer, 31,697; Mr. Semple, 527,517; Mr. Stice, 700.
- Includes all stock options exercisable within 60 days of January 31, 2019 as follows: Ms. Beall, 83,440; Mr. Floerke, 5,874; Mr. Goff, 283,329; Mr. Griffith, 233,800; Mr. Heminger, 2,498,655; Mr. Hennigan, 10,075; Mr. Swearingen, 172,834; Mr. Templin, 495,395; all other executive officers, 72,244.
- (g) Includes (i) 483,554 restricted stock units converted from previously outstanding Andeavor awards, a portion of which may be forfeited under certain conditions, (ii) 226,383 shares held by G Goff Foundation Inc., for which Mr. Goff acts as trustee with shared voting and investment power, and (iii) 38,875 shares held in trust for which Mr. Goff acts as trustee with shared voting and investment power.

- (h) Includes shares of common stock indirectly beneficially held in trust as follows: Mr. Heminger, 206,202; Mr. Peiffer, 63,394; Mr. Surma, 10,000.
- Includes restricted stock unit awards, which vest upon the director's retirement from service on the MPC Board or observer status, as follows: Mr. Semple, 4,707; Mr. Stice, 4,837; Mr. Surma, 33,410.

Securities Authorized for Issuance Under Equity Compensation Plans

The following table provides information as of December 31, 2018, with respect to common units that may be issued under the MPLX LP 2012 Plan and the MPLX LP 2018 Plan:

Number of securities to be issued upon exercise of outstanding options, warrants and rights ⁽¹⁾	Weighted average exercise price of outstanding options, warrants and rights ⁽²⁾	securities remaining available for future issuance under equity compensation plans (excluding securities reflected in the first column)(3)
1,372,439	N/A	15,743,356
	_	
1,372,439		15,743,356
	securities to be issued upon exercise of outstanding options, warrants and rights(1)	securities to be issued upon exercise of outstanding options, warrants and rights(1) 1,372,439 N/A — average exercise price of outstanding options, warrants and rights(2) N/A —

(1) Includes the following:

- (a) 1,154,336 phantom unit awards granted pursuant to the MPLX 2012 Plan and the MPLX 2018 Plan for common units unissued and not forfeited, cancelled or expired as of December 31, 2018.
- (b) 218,103 units as the maximum potential number of common units that could be issued in settlement of performance units outstanding as of December 31, 2018, pursuant to the MPLX 2012 Plan and the MPLX 2018 Plan based on the closing price of our common units on December 31, 2018, of \$30.30 per unit. The number of units reported for this award vehicle may overstate dilution. See Item 8. Financial Statements and Supplementary Data—Note 22 for more information on performance unit awards granted under the MPLX 2012 Plan and the MPLX 2018 Plan.
- (2) There is no exercise price associated with phantom unit awards.
- (3) Reflects the common units available for issuance pursuant to the MPLX 2018 Plan. The number of units reported in this column assumes 2,393 as the maximum potential number of common units that could be issued in settlement of performance units outstanding as of December 31, 2018, pursuant to the MPLX 2018 Plan based on the closing price of our common units on December 31, 2018, of \$30.30 per unit. The number of units assumed for this award vehicle may understate the number of common units available for issuance pursuant to the MPLX 2018 Plan. See Item 8. Financial Statements and Supplementary Data Note 22 for more information on performance unit awards issued pursuant to the MPLX 2018 Plan.

Item 13. Certain Relationships and Related Transactions, and Director Independence

Policy and Procedures with Respect to Related Person Transactions

Our Board has adopted a formal written related person transactions policy to establish procedures for the notification, review, approval, ratification and disclosure of related person transactions. This policy is available on our website at www.mplx.com under the heading "Investors" and the subheading "Corporate Governance." Under the policy, a "related person" includes any director, nominee for director, executive officer, or a known beneficial holder of more than 5% of any class of our voting securities (other than MPC or its affiliates) or any

immediate family member of a director, nominee for director, executive officer or more than 5% owner. This procedure applies to any transaction, arrangement or relationship and any series of similar transactions, arrangements or relationships in which (i) we are a participant, (ii) the amount involved exceeds \$120,000, and (iii) a related person has a direct or indirect material interest. The following transactions, arrangements or relationships, however, have the Board's standing pre-approval:

- Payment of compensation to an executive officer or director of our general partner if the compensation is otherwise required to be disclosed in our filings with the SEC;
- Any transaction where the related person's interest arises solely from the ownership of securities;
- Any ongoing employment relationship provided that such employment relationship will be subject to initial review and approval; and
- Any transaction between any of our subsidiaries and us, on the one hand, and our general partner or any of
 its affiliates, on the other hand; provided, however, that such transaction is approved consistent with our
 Partnership Agreement.

Any related person transaction that is identified prior to its consummation will be consummated only if the Board approves it in advance. If the related person transaction is identified after it commences, it will be promptly submitted to the Board or the Chairman for ratification, amendment or rescission. If the transaction has been completed, the Board or the Chairman will evaluate the transaction to determine if rescission is appropriate.

In determining whether to approve or ratify a related person transaction, the Board or the Chairman will consider all relevant facts and circumstances, including but not limited to:

- the benefits to us, including the business justification;
- if the related person is a director or an immediate family member of a director, the impact on the director's independence;
- the availability of other sources for comparable products or services;
- the terms of the transaction and the terms available to unrelated third parties or to employees generally; and
- whether the transaction is consistent with our Code of Business Conduct.

The related person transactions policy described above was adopted after the closing of the Initial Offering and, as a result, the transactions and arrangements with MPC described above that were entered into prior to the closing of the Initial Offering were not reviewed under such policy, but were approved by the Board.

Our Relationship with MPC

As of February 15, 2019, MPC owned through its affiliates 504,701,934 of our common units, representing approximately 64% of our common units outstanding, and 100% of MPLX GP, our general partner. MPLX GP manages our operations and activities through its officers and directors. In addition, Mr. Heminger is Chairman of the Board and Chief Executive Officer of MPC, and Messrs. Griffith, Templin and Goff serve as officers of MPC. Accordingly, we view transactions between MPC and us as related party transactions and have provided the following disclosures with respect to such transactions during 2018.

Acquisition and Restructuring Transactions

On February 1, 2018, pursuant to a Membership Interests Contribution Agreement entered into on November 13, 2017 by MPLX GP, MPLX, MPC Investment, and certain of their affiliates, MPC Investment contributed the membership interests in MPLX Fuels Distribution LLC and MPLX Refining Logistics LLC through a series of intercompany contributions to us for \$4.1 billion in cash, 111,611,111 of our common units and 2,277,778 of our general partner units.

On February 1, 2018, pursuant to a Partnership Interests Restructuring Agreement we entered into on December 15, 2017 with MPLX GP, MPLX GP cancelled its incentive distribution rights in us and converted its 2% general partner interest in us into a non-economic general partner interest, in exchange for 275,000,000 of our common units. MPC agreed to waive approximately one-third of the first quarter 2018 distributions on the common units issued in connection with this transaction.

Distributions and Reimbursements to MPC

Pursuant to our Partnership Agreement, we make cash distributions to our unitholders, including MPC. During 2018, we distributed approximately \$1,097 million with respect to MPC's limited partner interest and \$0 million with respect to MPC's 2% general partner interest. As of February 1, 2018, MPC's 2% general partner interest was converted into a non-economic general partner interest.

Under our Partnership Agreement, we reimburse MPLX GP and its affiliates, including MPC, for all costs and expenses incurred on our behalf. The amount we reimbursed in 2018 was \$3 million.

Transactions and Commercial and Other Agreements with MPC

We have multiple long-term, fee-based transportation and storage services agreements, as well as a variety of operating services agreements, management services agreements, licensing agreements, employee services agreements, an omnibus agreement, a loan agreement, and an aircraft time-sharing agreement with MPC and its consolidated subsidiaries. See "Our L&S Contracts with MPC and Third Parties—Transportation Services Agreements, Storage Services Agreements, Terminal Services Agreements and Fuels Distribution Services Agreement with MPC" in Item 1. Business, and Note 6—Related Party Agreements and Transactions in the Notes to Consolidated Financial Statements, for information regarding related party activities with MPC.

Director Independence

The information appearing under "Director Independence" in Item 10. Directors, Executive Officers and Corporate Governance is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

Auditor Independence

Our Audit Committee has considered whether PricewaterhouseCoopers LLP is independent for purposes of providing external audit services to us and has determined that it is.

Auditor Fees

Following are the aggregate fees for professional services provided to us by PricewaterhouseCoopers LLP for the years ended December 31, 2018, and December 31, 2017:

(In thousands)	20	18	2017	
Audit	\$	3,617	\$	3,806
Audit-Related		163		469
Tax		989		1,081
All Other		6		2
Total	\$	4,775	\$	5,358

Audit fees for the years ended December 31, 2018, and December 31, 2017, were for professional services rendered for the audit of the financial statements and of internal controls over financial reporting, the performance of regulatory audits, issuance of comfort letters, the provision of consents and the review of documents filed with the SEC.

Audit-Related fees for the year ended December 31, 2018 and December 31, 2017, were for professional services rendered in relation to updating accounting processes and procedures in order to comply with new accounting pronouncements.

Tax fees for the years ended December 31, 2018, and December 31, 2017, were for professional services rendered for the preparation of IRS Schedule K-1 tax forms for MPLX LP unitholders and for income tax consultation services.

All Other fees for the years ended December 31, 2018, and December 31, 2017, were for subscriptions and licenses for online accounting resources provided by PricewaterhouseCoopers LLP.

Pre-Approval of Audit Services

Among other things, our Pre-Approval of Audit, Audit-Related, Tax and Permissible Non-Audit Services Policy sets forth the procedure for the Audit Committee to pre-approve all audit, audit-related, tax and permissible non-audit services, other than as provided under a de minimis exception.

Under the policy, the Audit Committee may pre-approve any services to be performed by our independent auditor up to twelve months in advance and may approve in advance services by specific categories pursuant to a forecasted budget. Annually, the executive vice president and chief financial officer of our general partner will present a forecast of audit, audit-related, tax and permissible non-audit services for the ensuing fiscal year to the Audit Committee for approval in advance. The executive vice president and chief financial officer of our general partner, in coordination with the independent auditor, will provide an updated budget to the Audit Committee, as needed, throughout the ensuing fiscal year.

Pursuant to the policy, the Audit Committee has delegated pre-approval authority of up to \$250,000 to the Chair of the Audit Committee for unbudgeted items, and the Chair reports the items pre-approved pursuant to this delegation to the full Audit Committee at the next scheduled meeting.

Part IV

Item 15. Exhibits and Financial Statement Schedules

A. Documents Filed as Part of the Report

- 1. Financial Statements (see Part II, Item 8. of this Annual Report on Form 10-K regarding financial statements)
- 2. Financial Statement Schedules

Financial statement schedules required under SEC rules but not included in this Annual Report on Form 10-K are omitted because they are not applicable or the required information is contained in the consolidated financial statements or notes thereto.

Exhibits:

			Incorpo	orated by Refere	nce		
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
1.1	Third Amended and Restated Distribution Agreement, dated as of March 13, 2018, by and among the Partnership, the General Partner and each of J.P. Morgan Securities LLC, Barclays Capital Inc., Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, RBC Capital Markets, LLC, UBS Securities LLC and Wells Fargo Securities, LLC	8-K	1.1	3/13/2018	001-35714		
2.1	Partnership Interests Purchase Agreement dated February 26, 2014, by and between MPLX Operations LLC and MPL Investment LLC	8-K	2.1	3/4/2014	001-35714		
2.2	Partnership Interests Purchase and Contribution Agreement, dated December 1, 2014, by and among MPLX Operations LLC, MPLX Logistics Holdings LLC, MPLX LP and MPL Investment LLC	8-K	2.1	12/2/2014	001-35714		
2.3 †	Agreement and Plan of Merger, dated as of July 11, 2015, by and among MPLX LP, Sapphire Holdco LLC, MPLX GP LLC, MarkWest Energy Partners, L.P. and, for certain limited purposes set forth therein, Marathon Petroleum Corporation	10-Q	2.1	8/3/2015	001-35714		
2.4	Amendment to Agreement and Plan of Merger, dated as of November 10, 2015, by and among MPLX LP, Sapphire Holdco LLC, MPLX GP LLC, MarkWest Energy Partners, L.P. and Marathon Petroleum Corporation	8-K	2.1	11/12/2015	001-35714		
2.5	Amendment Number 2 to Agreement and Plan of Merger, dated as of November 16, 2015, by and among MPLX LP, Sapphire Holdco LLC, MPLX GP LLC, MarkWest Energy Partners, L.P. and Marathon Petroleum Corporation	8-K	2.1	11/17/2015	001-35714		

			Incorp	orated by Refere	ence		
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
2.6	Membership Interests Contribution Agreement, dated March 14, 2016, between MPLX LP, MPLX Logistics Holdings LLC, MPLX GP LLC and MPC Investment LLC	8-K	2.1	3/17/2016	001-35714		
2.7	Membership Interests Contributions Agreement, dated March 1, 2017, between MPLX LP, MPLX Logistics Holdings LLC, MPLX Holdings Inc., MPLX GP LLC and MPC Investment LLC	8-K	2.1	3/2/2017	001-35714		
2.8	Membership Interests and Shares Contributions Agreement, dated September 1, 2017, between MPLX LP, MPLX Logistics Holdings LLC, MPLX Holdings Inc., MPLX GP LLC and MPC Investment LLC	8-K	2.1	9/1/2017	001-35714		
2.9	Membership Interests Contribution Agreement, dated November 13, 2017, between MPLX LP, MPLX Logistics Holdings LLC, MPLX Holdings Inc., MPLX GP LLC and MPC Investment LLC	8-K	2.1	11/13/2017	001-35714		
3.1	Certificate of Limited Partnership of MPLX LP	S-1	3.1	7/2/2012	333-182500		
3.2	Amendment to the Certificate of Limited Partnership of MPLX LP	S-1/A	3.2	10/9/2012	333-182500		
3.3	Fourth Amended and Restated Agreement of Limited Partnership of MPLX LP, dated as of February 1, 2018	8-K	3.1	2/2/2018	001-35714		
4.1	Indenture, dated February 12, 2015, between MPLX LP and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.1	2/12/2015	001-35714		
4.2	First Supplemental Indenture, dated February 12, 2015, between MPLX LP and The Bank of New York Mellon Trust Company, N.A., as Trustee (including Form of Notes)	8-K	4.2	2/12/2015	001-35714		
4.3	Second Supplemental Indenture, dated as of December 22, 2015, by and between MPLX LP and the Bank of New York Mellon Trust Company, N.A. (including Form of Note)	8-K	4.2	12/22/2015	001-35714		

			Incorp				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
4.4	Third Supplemental Indenture, dated as of December 22, 2015, by and between MPLX LP and the Bank of New York Mellon Trust Company, N.A. (including Form of Note)	8-K	4.3	12/22/2015	001-35714		
4.5	Fourth Supplemental Indenture, dated as of December 22, 2015, by and between MPLX LP and the Bank of New York Mellon Trust Company, N.A. (including Form of Note)	8-K	4.4	12/22/2015	001-35714		
4.6	Fifth Supplemental Indenture, dated as of December 22, 2015, by and between MPLX LP and the Bank of New York Mellon Trust Company, N.A. (including Form of Note)	8-K	4.5	12/22/2015	001-35714		
4.7	Registration Rights Agreement, dated as of May 13, 2016, by and between MPLX LP and the Purchasers party thereto	8-K	4.1	5/16/2016	001-35714		
4.8	Sixth Supplemental Indenture, dated as of February 10, 2017, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.1	2/10/2017	001-35714		
4.9	Seventh Supplemental Indenture, dated as of February 10, 2017, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.2	2/10/2017	001-35714		
4.10	Eighth Supplemental Indenture, dated as of February 8, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.1	2/8/2018	001-35714		
4.11	Ninth Supplemental Indenture, dated as of February 8, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.2	2/8/2018	001-35714		
4.12	Tenth Supplemental Indenture, dated as of February 8, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.3	2/8/2018	001-35714		

			Incorp				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
4.13	Eleventh Supplemental Indenture, dated as of February 8, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.4	2/8/2018	001-35714		
4.14	Twelfth Supplemental Indenture, dated as of February 8, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee	8-K	4.5	2/8/2018	001-35714		
4.15	Thirteenth Supplemental Indenture, dated as of November 15, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee (including form of note)	8-K	4.1	11/15/2018	001-35714		
4.16	Fourteenth Supplemental Indenture, dated as of November 15, 2018, between the Issuer and The Bank of New York Mellon Trust Company, N.A., as Trustee (including form of note)	8-K	4.2	11/15/2018	001-35714		
10.1*	MPLX LP 2012 Incentive Compensation Plan	S-1/A	10.3	10/9/2012	333-182500		
10.2	Contribution, Conveyance and Assumption Agreement, dated as of October 31, 2012, among MPLX LP, MPLX GP LLC, MPLX Operations LLC, MPC Investment LLC, MPLX Logistics Holdings LLC, Marathon Pipe Line LLC, MPL Investment LLC, MPLX Pipe Line Holdings LP and Ohio River Pipe Line LLC	8-K	10.1	11/6/2012	001-35714		
10.3	Omnibus Agreement, dated as of October 31, 2012, among Marathon Petroleum Corporation, Marathon Petroleum Company LP, MPL Investment LLC, MPLX Operations LLC, MPLX Terminal and Storage LLC, MPLX Pipe Line Holdings LP, Marathon Pipe Line LLC, Ohio River Pipe Line LLC, MPLX LP and MPLX GP LLC	8-K	10.2	11/6/2012	001-35714		
10.4	Employee Services Agreement, dated effective as of October 1, 2012, by and among Marathon Petroleum Logistics Services LLC, MPLX GP LLC and Marathon Pipe Line LLC	S-1/A	10.6	10/9/2012	333-182500		

			Incorp				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.5	Employee Services Agreement, dated effective as of October 1, 2012, by and among Catlettsburg Refining LLC, MPLX GP LLC and MPLX Terminal and Storage LLC	S-1/A	10.7	10/9/2012	333-182500		
10.6	Management Services Agreement, dated effective as of September 1, 2012, by and between Hardin Street Holdings LLC and Marathon Pipe Line LLC	S-1/A	10.8	9/7/2012	333-182500		
10.7	Management Services Agreement, dated effective as of October 10, 2012, by and between MPL Louisiana Holdings LLC and Marathon Pipe Line LLC	S-1/A	10.9	10/18/2012	333-182500		
10.8	Amended and Restated Operating Agreement, dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.3	11/6/2012	001-35714		
10.9	Storage Services Agreement, dated effective as of October 1, 2012, by and between Marathon Pipe Line LLC and Marathon Petroleum Company LP (Patoka tank farm)	S-1/A	10.13	10/9/2012	333-182500		
10.10	Storage Services Agreement, dated effective as of October 1, 2012, by and between Marathon Pipe Line LLC and Marathon Petroleum Company LP (Martinsville tank farm)	S-1/A	10.14	10/9/2012	333-182500		
10.11	Storage Services Agreement, dated effective as of October 1, 2012, by and between Marathon Pipe Line LLC and Marathon Petroleum Company LP (Lebanon tank farm)	S-1/A	10.15	10/9/2012	333-182500		
10.12	Storage Services Agreement, dated effective as of October 1, 2012, by and between Marathon Pipe Line LLC and Marathon Petroleum Company LP (Wood River tank farm)	S-1/A	10.16	10/9/2012	333-182500		
10.13	Storage Services Agreement, dated effective as of October 1, 2012, by and between MPLX Terminal and Storage LLC and Marathon Petroleum Company LP (Neal butane cavern)	S-1/A	10.17	10/9/2012	333-182500		

		Incorporated by Reference					
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.14	Transportation Services Agreement (Patoka to Lima Crude System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.4	11/6/2012	001-35714		
10.15	Transportation Services Agreement (Catlettsburg and Robinson Crude System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.5	11/6/2012	001-35714		
10.16	Transportation Services Agreement (Detroit Crude System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.6	11/6/2012	001-35714		
10.17	Transportation Services Agreement (Wood River to Patoka Crude System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.7	11/6/2012	001-35714		
10.18	Transportation Services Agreement (Garyville Products System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.8	11/6/2012	001-35714		
10.19	Transportation Services Agreement (Texas City Products System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.9	11/6/2012	001-35714		
10.20	Transportation Services Agreement (ORPL Products System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Ohio River Pipe Line LLC	8-K	10.10	11/6/2012	001-35714		
10.21	Transportation Services Agreement (Robinson Products System), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.11	11/6/2012	001-35714		
10.22	Transportation Services Agreement (Wood River Barge Dock), dated as of October 31, 2012, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.12	11/6/2012	001-35714		

			Incorp				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.23*	MPC Non-Employee Director Phantom Unit Award Policy	10-K	10.26	3/25/2013	001-35714		
10.24*	MPLX GP LLC Amended and Restated Non-Management Director Compensation Policy and Equity Award Terms	10-K	10.30	2/24/2017	001-35714		
10.25	First Amendment to Amended and Restated Operating Agreement, dated as of January 1, 2015, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	10-Q	10.2	5/4/2015	001-35714		
10.26	Operating Agreement, dated as of January 1, 2015, between Hardin Street Transportation LLC and Marathon Pipe Line LLC	10-Q	10.3	5/4/2015	001-35714		
10.27	Transportation Services Agreement (Cornerstone Pipeline System and Utica Build-Out Projects), effective as of June 11, 2015, by and between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.1	6/17/2015	001-35714		
10.28	First Amendment to Storage Services Agreement, dated as of September 17, 2015, by and between Marathon Petroleum Company LP and Marathon Pipe Line LLC	8-K	10.1	9/23/2015	001-35714		
10.29	Loan Agreement, by and between MPLX LP and MPC Investment LLC, dated December 4, 2015	8-K	10.1	12/10/2015	001-35714		
10.30*	Letter Agreement, by and between Marathon Petroleum Corporation and Paula L. Rosson, dated October 6, 2015	8-K	10.4	12/10/2015	001-35714		
10.31*	Retention Agreement, by and between Marathon Petroleum Company LP and Greg S. Floerke, dated September 14, 2015	10-K	10.41	2/26/2016	001-35714		
10.32*	Retention Agreement, by and between Marathon Petroleum Company LP and C. Corwin Bromley, dated September 14, 2015	10-K	10.42	2/26/2016	001-35714		
10.33	Employee Services Agreement, dated December 28, 2015, by and between MPLX LP and MW Logistics Services LLC	8-K	10.1	1/4/2016	001-35714		

		Incorporated by Reference					
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.34*	Executive Employment Agreement effective September 5, 2007 between MarkWest Hydrocarbon, Inc. and Frank Semple	8-K	10.1	9/11/2007	001-31239		
10.35+	Second Amended and Restated Limited Liability Company Agreement of MarkWest Utica EMG, L.L.C. dated December 4, 2015, between MarkWest Utica Operating Company, L.L.C. and EMG Utica, LLC	10-K	10.48	2/26/2016	001-35714		
10.36	Amended and Restated Transportation Services Agreement, dated January 1, 2015, between Hardin Street Marine LLC and Marathon Petroleum Company LP	8-K	10.1	4/6/2016	001-35714		
10.37	First Amendment to the Amended and Restated Transportation Services Agreement, dated March 31, 2016, between Hardin Street Marine LLC and Marathon Petroleum Company LP	8-K	10.2	4/6/2016	001-35714		
10.38	Amended and Restated Management Services Agreement, dated January 1, 2015, between Hardin Street Marine LLC and Marathon Petroleum Company LP	8-K	10.3	4/6/2016	001-35714		
10.39	Second Amended and Restated Employee Services Agreement, dated January 1, 2015, between Hardin Street Marine LLC and Marathon Petroleum Logistics Services LLC	8-K	10.4	4/6/2016	001-35714		
10.40*	Form of MPLX LP Performance Unit Award Agreement—Marathon Petroleum Corporation Officer	10-Q	10.9	5/1/2017	001-35714		
10.41*	Form of MPLX LP Phantom Unit Award Agreement—Marathon Petroleum Corporation Officer	10-Q	10.7	5/2/2016	001-35714		
10.42*	Form of MPLX LP Performance Unit Award Agreement	10-Q	10.8	5/1/2017	001-35714		
10.43*	Form of MPLX LP Phantom Unit Award Agreement—Officer	10-Q	10.9	5/2/2016	001-35714		
10.44	Series A Preferred Unit Purchase Agreement, dated as of April 27, 2016, by and among MPLX LP and the Purchasers party thereto	8-K	10.1	4/29/2016	001-35714		

			Incorp				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.45	Master Reorganization Agreement, dated September 1, 2016, by and among MPLX Holdings Inc., MarkWest Energy Partners, L.P., MWE GP LLC, MPLX LP, MPLX GP LLC, MPC Investment LLC, MPLX Logistics Holdings LLC and MarkWest Hydrocarbon, L.L.C.	8-K	10.1	9/6/2016	001-35714		
10.46	Second Amendment to Amended and Restated Operating Agreement, dated August 1, 2016, between Marathon Petroleum Company LP and Marathon Pipe Line LLC	10-Q	10.2	10/31/2016	001-35714		
10.47	First Amendment to Employee Services Agreement, dated May 10, 2016, by and between Marathon Petroleum Logistics Services LLC, MPLX GP LLC and Marathon Pipe Line LLC	10-Q	10.1	8/3/2016	001-35714		
10.48	First Amendment to Amended and Restated Transportation Services Agreement, effective as of April 1, 2016, by and between Marathon Petroleum Company LP and Hardin Street Marine LLC	10-Q	10.2	8/3/2016	001-35714		
10.49	First Amendment to Amended and Restated Management Services Agreement, effective as of November 1, 2016, between Marathon Petroleum Company LP and Hardin Street Marine LLC	10-K	10.62	2/24/2017	001-35714		
10.50	First Amendment to Transportation Services Agreement, dated November 1, 2016, between Marathon Pipeline LLC and Marathon Petroleum Company LP (Texas City Products System)	10-K	10.63	2/24/2017	001-35714		
10.51	Second Amended and Restated Employee Services Agreement, dated March 1, 2017, between Marathon Petroleum Logistics Services LLC, Marathon Pipe Line LLC and MPLX GP LLC	8-K	10.1	3/2/2017	001-35714		
10.52	Transportation Services Agreement, dated January 1, 2015, between Hardin Street Transportation LLC and Marathon Petroleum Company LP	8-K	10.2	3/2/2017	001-35714		

			Incorpo				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.53	First Amendment to Transportation Services Agreement, dated December 1, 2016, between Hardin Street Transportation LLC and Marathon Petroleum Company LP	8-K	10.3	3/2/2017	001-35714		
10.54	Second Amendment to Transportation Services Agreement, dated January 1, 2017, between Hardin Street Transportation LLC and Marathon Petroleum Company LP	8-K	10.4	3/2/2017	001-35714		
10.55	Third Amendment to Transportation Services Agreement, dated January 1, 2017, between Hardin Street Transportation LLC and Marathon Petroleum Company LP	8-K	10.5	3/2/2017	001-35714		
10.56	Third Amended and Restated Terminal Services Agreement, dated March 1, 2017, between MPLX Terminals LLC and Marathon Petroleum Company LP	8-K	10.6	3/2/2017	001-35714		
10.57	Third Amended and Restated Employee Services Agreement, effective December 21, 2015, between MPLX Terminals LLC and Marathon Petroleum Logistics Services LLC	8-K	10.7	3/2/2017	001-35714		
10.58*	Form of MPLX LP Phantom Unit Award Agreement—Officer, Cliff Vesting	10-Q	10.1	8/3/2017	001-35714		

			Incorp				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.59	Credit Agreement, dated as of July 21, 2017, among MPLX LP, as borrower, Wells Fargo Bank, National Association, as administrative agent, each of Wells Fargo Securities, LLC, JPMorgan Chase Bank, N.A., Barclays Bank PLC, Citigroup Global Markets Inc., Merrill Lynch, Pierce, Fenner & Smith Incorporated, Mizuho Bank, Ltd., The Bank of Tokyo-Mitsubishi UFJ, Ltd. and RBC Capital Markets, as joint lead arrangers and joint bookrunners, JPMorgan Chase Bank, N.A., as syndication agent, each of Bank of America, N.A., Barclays Bank PLC, Citigroup Global Markets Inc., Mizuho Bank, Ltd., The Bank of Tokyo-Mitsubishi UFJ, Ltd., and Royal Bank of Canada, as documentation agents, and the other lenders and issuing banks that are parties thereto.	8-K	10.1	7/27/2017	001-35714		
10.60*	Amended Restricted Stock Award Agreement	10-Q	10.2	10/30/2017	001-35714		
10.61*	MPLX LP Executive Change in Control Severance Benefits Plan	10-Q	10.3	10/30/2017	001-35714		
10.62	Transportation Services Agreement, dated November 1, 2017, between Marathon Pipe Line LLC and Marathon Petroleum Company LP	8-K	10.1	11/7/2017	001-35714		
10.63	Fourth Amendment to Transportation Services Agreement, dated November 1, 2017, between Hardin Street Transportation LLC and Marathon Petroleum Company LP	8-K	10.2	11/7/2017	001-35714		
10.64	Partnership Interests Restructuring Agreement, dated as of December 15, 2017, among MPLX GP LLC and MPLX LP	8-K	10.1	12/19/2017	001-35714		

			Incorpor				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.65	Term Loan Agreement, dated as of January 2, 2018, among MPLX LP, as borrower, Mizuho Bank, Ltd., as administrative agent, each of Mizuho Bank, Ltd., Merrill Lynch, Pierce, Fenner & Smith Incorporated, The Bank of Tokyo-Mitsubishi UFJ, Ltd., Barclays Bank PLC, JPMorgan Chase Bank, N.A., and Wells Fargo Securities, LLC, as joint lead arrangers and joint bookrunners, Bank of America, N.A., The Bank of Tokyo-Mitsubishi UFJ, Ltd., Barclays Bank PLC, JPMorgan Chase Bank, N.A., and Wells Fargo Bank, National Association, as syndication agents, and the other lenders and issuing banks that are parties thereto	8-K	10.1	1/4/2018	001-35714		
10.66+	Storage Services Agreement, dated as of October 1, 2017, by and between Marathon Petroleum Company LP, Blanchard Refining Company LLC and Galveston Bay Refining Logistics LLC.	8-K	10.1	2/2/2018	001-35714		
10.67+	Storage Services Agreement, dated as of October 1, 2017, by and between Marathon Petroleum Company LP and Garyville Refining Logistics LLC.	8-K	10.2	2/2/2018	001-35714		
10.68	Master Amendment to Storage Services Agreements, dated as of October 1, 2017, by and between Marathon Petroleum Company LP, Blanchard Refining Company LLC, Galveston Bay Refining Logistics LLC and the other parties named therein.	8-K	10.3	2/2/2018	001-35714		
10.69+	Fuels Distribution Services Agreement, dated as of September 26, 2017, by and between Marathon Petroleum Company LP and MPLX Fuels Distribution LLC.	8-K	10.4	2/2/2018	001-35714		
10.70	First Amendment to Fuels Distribution Services Agreement, dated as of September 26, 2017, by and between Marathon Petroleum Company LP and MPLX Fuels Distribution LLC.	8-K	10.5	2/2/2018	001-35714		
10.71*	MPLX LP 2018 Incentive Compensation Plan	8-K	10.1	3/5/2018	001-35714		

			Incorpo				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
10.72*	Form of MPLX LP Performance Unit Award Agreement—Marathon Petroleum Corporation Officer	10-Q	10.8	4/30/2018	001-35714		
10.73*	Form of MPLX LP Phantom Unit Award Agreement—Marathon Petroleum Corporation Officer	10-Q	10.9	4/30/2018	001-35714		
10.74*	Form of MPLX LP Performance Unit Award Agreement	10-Q	10.10	4/30/2018	001-35714		
10.75*	Form of MPLX LP Phantom Unit Award Agreement—Officer	10-Q	10.11	4/30/2018	001-35714		
10.76*	Form of MPLX LP Phantom Unit Award Agreement—Officer—Three Year Cliff Vesting	10-Q	10.12	4/30/2018	001-35714		
10.77*	First Amendment to the Loan Agreement by and between MPLX LP and MPC Investment LLC, dated December 4, 2015	10-Q	10.13	4/30/2018	001-35714		
10.78*	MPLX LP 2018 Incentive Compensation Plan MPC Non-Employee Director Phantom Unit Award Policy					X	
10.79*	MPLX GP LLC Amended and Restated Non-Management Director Compensation Policy and Director Equity Award Terms					X	
14.1	Code of Ethics for Senior Financial Officers	10-K	14.1	2/24/2017			
21.1	List of Subsidiaries					X	
23.1	Consent of Independent Registered Public Accounting Firm					X	
24.1	Power of Attorney of Directors and Officers of MPLX GP LLC					X	
31.1	Certification of Chief Executive Officer pursuant to Rule 13(a)-14 and 15(d)-14 under the Securities Exchange Act of 1934					X	
31.2	Certification of Chief Financial Officer pursuant to Rule 13(a)-14 and 15(d)-14 under the Securities Exchange Act of 1934					X	
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. Section 1350						X
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. Section 1350						X
	XBRL Instance Document					X	
101.SCH	XBRL Taxonomy Extension Schema					X	

			Incorporate				
Exhibit Number	Exhibit Description	Form	Exhibit	Filing Date	SEC File No.	Filed Herewith	Furnished Herewith
101.PRE	XBRL Taxonomy Extension Presentation Linkbase					X	
101.CAL	XBRL Taxonomy Extension Calculation Linkbase					X	
101.DEF	XBRL Taxonomy Extension Definition Linkbase					X	
101.LAB	XBRL Taxonomy Extension Label Linkbase					X	

- † The exhibits and schedules have been omitted pursuant to Item 601(b)(2) of Regulation S-K and will be provided to the Securities and Exchange Commission upon request.
- * Indicates management contract or compensatory plan, contract or arrangement in which one or more directors or executive officers of the Registrant may be participants.
- + Application has been made to the Securities and Exchange Commission for confidential treatment of certain provisions of these exhibits. Omitted material for which confidential treatment has been requested and has been filed separately with the Securities and Exchange Commission.

Pursuant to Item 601(b)(4) of Regulation S-K, certain instruments with respect to long-term debt issues have been omitted where the amount of securities authorized under such instruments does not exceed 10 percent of the total consolidated assets of the Registrant. The Registrant hereby agrees to furnish a copy of any such instrument to the Securities and Exchange Commission upon its request.

Item 16. Form 10-K Summary

Not applicable.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

Date: February 28, 2019 MPLX LP

By: MPLX GP LLC Its general partner

By: /s/ C. Kristopher Hagedorn

C. Kristopher Hagedorn Vice President and Controller of MPLX GP LLC (the general partner of MPLX LP) Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on February 28, 2019 on behalf of the registrant and in the capacities indicated.

Signature	Title
/s/ Gary R. Heminger	Chairman of the Board of Directors and Chief
Gary R. Heminger	Executive Officer of MPLX GP LLC (the general partner of MPLX LP) (principal executive officer)
/s/ Pamela K.M. Beall	Director, Executive Vice President and Chief
Pamela K.M. Beall	Financial Officer of MPLX GP LLC (the general partner of MPLX LP) (principal financial officer)
/s/ C. Kristopher Hagedorn	Vice President and Controller of MPLX GP LLC (the
C. Kristopher Hagedorn	general partner of MPLX LP) (principal accounting officer)
*	Director and President of MPLX GP LLC (the
Michael J. Hennigan	general partner of MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Michael L. Beatty	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Gregory James Goff	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Timothy T. Griffith	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Christopher A. Helms	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Garry L. Peiffer	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Dan D. Sandman	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Frank M. Semple	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
J. Michael Stice	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
John P. Surma	MPLX LP)
*	Director of MPLX GP LLC (the general partner of
Donald C. Templin	MPLX LP)

^{*} The undersigned, by signing his name hereto, does sign and execute this report pursuant to the Power of Attorney executed by the above-named directors and officers of the general partner of the registrant, which is being filed herewith on behalf of such directors and officers.

By: /s/ Gary R. Heminger	February 28, 2019
Gary R. Heminger	,
Attorney-in-Fact	





MPLX LP 200 East Hardin St. Findlay, OH 45840

Non-GAAP Financial Measures

Adjusted EBITDA, distributable cash flow (DCF), distribution coverage ratio and leverage ratio are non-GAAP financial measures provided in this presentation. Adjusted EBITDA and DCF reconciliations to the nearest GAAP financial measure are included on Pages 10-11 and in the MPLX Annual Report on Form 10-K for the year ended Dec. 31, 2018, filed with the SEC. Distribution coverage ratio is the ratio of DCF attributable to GP and LP unitholders to total GP and LP distributions declared. Leverage ratio is consolidated debt to last 12 months pro forma adjusted EBITDA. These non-GAAP financial measures are not defined by GAAP and should not be considered in isolation of or as an alternative to net income attributable to MPLX, net cash provided by (used in) operating activities or other financial measures prepared in accordance with GAAP. Certain EBITDA forecasts were determined on an EBITDA-only basis. Accordingly, information related to the elements of net income, including tax and interest, are not available and, therefore, reconciliations of these non-GAAP financial measures to the nearest GAAP financial measures have not been provided.

Disclosures Regarding Forward-Looking Statements

This summary annual report wrap includes forward-looking statements. You can identify our forward-looking statements by words such as "anticipate," "believe," "design," "estimate," "expect," "forecast," "goal," "guidance," "imply," "intend," "objective," "opportunity," "outlook," "plan," "position," "pursue," "prospective," "predict," "project," "potential," "seek," "strategy," "target," "could," "may," "should," "would," "will" or other similar expressions that convey the uncertainty of future events or outcomes. We have based our forward-looking statements on our current expectations, estimates and projections about our industry and our partnership. We caution that these statements are not guarantees of future performance and you should not rely unduly on them, as they involve risks, uncertainties and assumptions that we cannot predict. In addition, we have based many of these forward-looking statements on assumptions about future events that may prove to be inaccurate. While our management considers these assumptions to be reasonable, they are inherently subject to significant business, economic, competitive, regulatory and other risks, contingencies and uncertainties, most of which are difficult to predict and many of which are beyond our control. Accordingly, our actual results may differ materially from the future performance that we have expressed or forecast in our forward-looking statements. In accordance with "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, we have included in our attached Form 10-K for the year ended Dec. 31, 2018, cautionary language identifying important factors, though not necessarily all such factors, that could cause future outcomes to differ materially from those set forth in the forwardlooking statements.

