



PLAINS
ALL AMERICAN
PIPELINE, L.P.

2017 MLPA Investor Conference

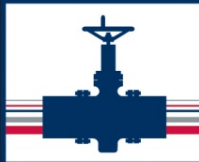
Orlando, FL • June 1, 2017



PLAINS GP
HOLDINGS

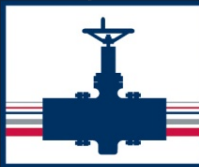


Forward-Looking Statements And Non-GAAP Financial Measures



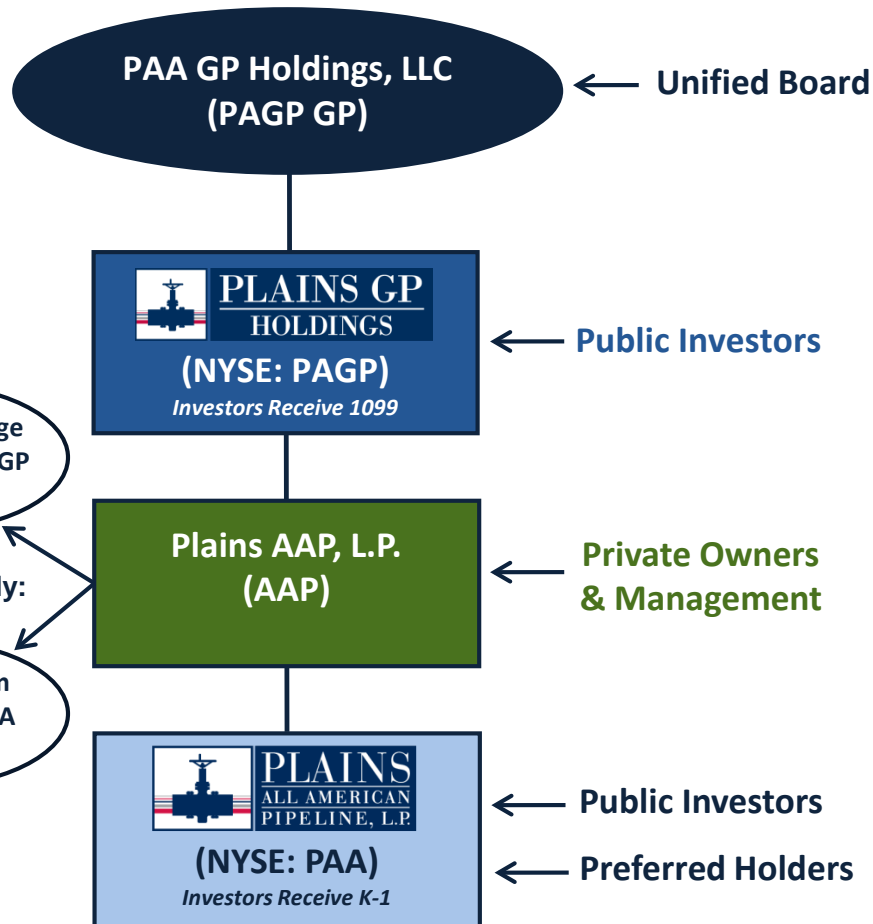
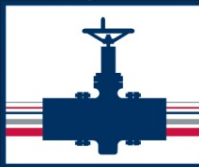
- Except for the historical information contained herein, the matters discussed in this presentation consist of forward-looking statements. These forward-looking statements are based on PAGP's and PAA's current views with respect to future events, based on what we believe to be reasonable assumptions. Actual results may differ significantly because of risks and uncertainties that are difficult to predict and that may be beyond the control of PAGP and PAA. You should read PAGP's and PAA's Annual Reports on Form 10-K for the year ended December 31, 2016 and their most recently filed Quarterly Reports on Form 10-Q for a more extensive list of factors that could cause actual results or outcomes to differ materially from the results or outcomes anticipated in the forward-looking statements. PAGP and PAA undertake no obligation to revise any forward-looking statements to reflect events or circumstances occurring after today's date.
- This presentation also contains non-GAAP financial measures relating to PAA, such as adjusted EBITDA. A reconciliation of these measures to the most directly comparable GAAP measures is available in the Investor Relations section of PAA's and PAGP's website at www.plainsallamerican.com, select "PAA" or "PAGP," navigate to the "Financial Information" tab, then click on "Non-GAAP Reconciliations."

Discussion Outline



- **Brief Overview of Plains All American**
- **Crude Oil Fundamentals Update**
- **PAA's Strategic Positioning**
- **PAA's Operating Leverage & Outlook**

Simplified Organization Structure



- Financial structure provides flexibility and optionality
- Two publicly traded equity securities
 - ✓ NYSE: "PAA" and "PAGP"
 - ✓ Current Yields ~8.2%
- 100% of assets and operations reside at the MLP entity (PAA)

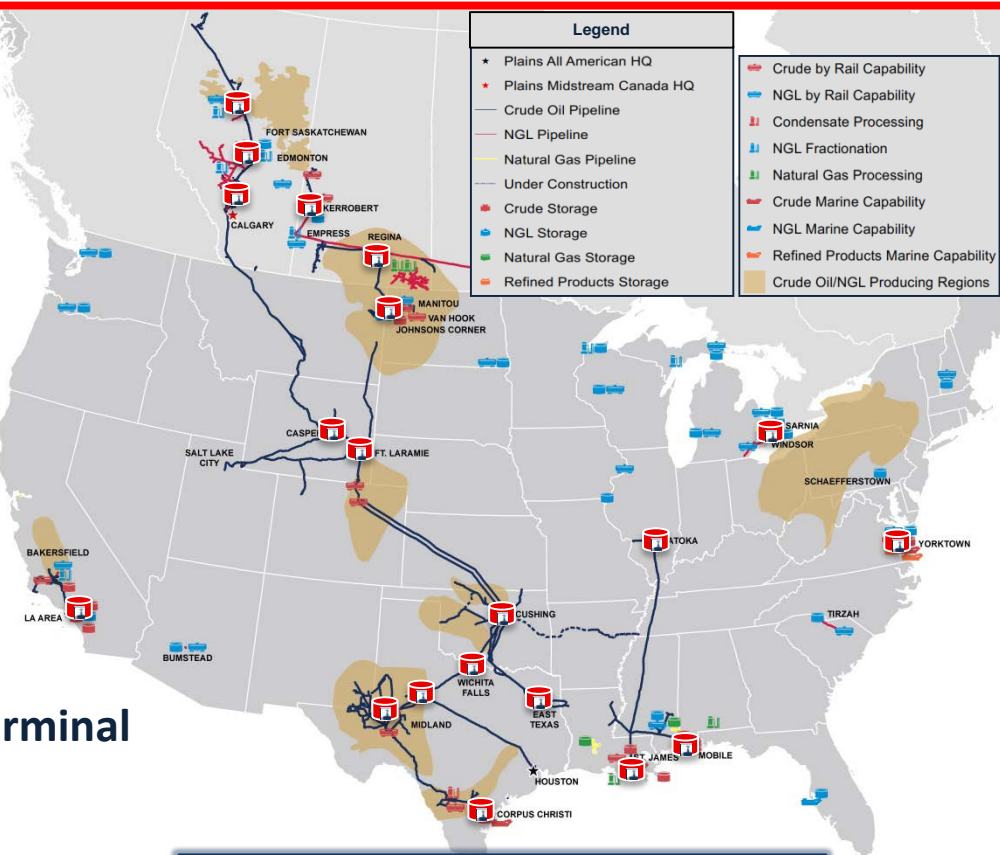
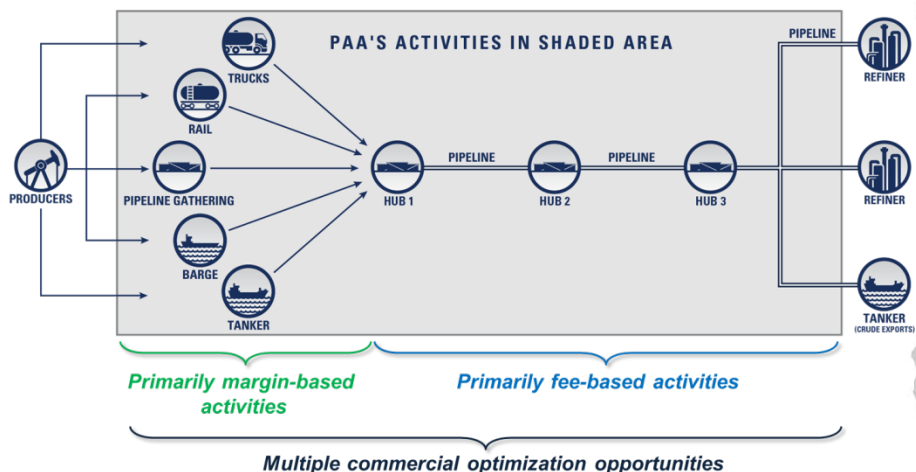
(1) As of 05/30/17

PAA: A Leading Crude Oil & NGL Midstream Operator

Focused On Optimizing Integrated System & Growing Fee-Based EBITDA



PAA's Crude Oil Value Chain



PAA Has:

1. Highly integrated crude oil pipeline & terminal system in the U.S.
2. Minimal direct exposure to commodity prices
3. Multiple expansion projects coming on-stream supported by long-term contracts

	Permian	Mid-Continent	Canada	Rockies	Williston	West Coast	Gulf Coast	Eagle Ford	East Coast
Crude Oil									
Multiple Pipeline Connections	✓	✓	✓	✓	✓	✓	✓	✓	-
Storage	✓	✓	✓	✓	✓	✓	✓	✓	✓
Trucks	✓	✓	✓	✓	✓	✓	✓	✓	-
Rail	✓	-	✓	✓	✓	✓	✓	✓	✓
Marine Access	N/A	N/A	-	N/A	N/A	✓	✓	✓	✓

Activities Over The Last Year Improves PAA's Positioning For The Long-Term



Operating Initiatives

- Continued to Execute Multi-Year Organic Growth Capital Program
- Completed Strategic Acquisitions
 - ✓ Alpha Crude Connector (Permian)
 - ✓ Advantage Pipeline (Permian)
 - ✓ Empress NGL Assets (Canada)
- Enhanced Focus on the Core Business
 - ✓ Selling non-core assets
- Continued to Optimize the System
 - ✓ Leverage PAA's lease gathering presence to capture volumes (value chain)
 - ✓ Executing JVs with strategic partners
- Captured Efficiencies and Cost Savings
- Positioned For Recovery
 - ✓ Enhancing system interconnectivity
 - ✓ Expanding existing pipeline capacity
 - ✓ Developing new pipeline projects

Financial Initiatives

- Initiated and Completed Simplification Transaction
 - ✓ Eliminated IDRs
 - ✓ Reduced cost of equity
 - ✓ Reset distribution
 - ✓ Established 115% distribution coverage target
 - ✓ Reiterated ~3.5x – 4.0x leverage target
- Added Fitch Credit Rating: BBB
- Funded Alpha and 2017 Capex Program Through Non-Debt Sources
 - ✓ Combination of equity and non-core asset sale proceeds
- Strengthened Capital Structure
 - ✓ Combination of equity issuance and debt reduction

2017 Investor Day – Key Takeaways



- **Leading Permian Position (>1.2mmb/d⁽¹⁾ of production growth from 2017 to 2019)**
 - ✓ PAA's largest asset base / most operating leverage; active across full crude oil midstream value chain with significant flexibility and access to multiple markets
 - ✓ Anticipate ~30% production growth in 2017 (enter 2018 @ +/- 2.8 mmb/d)
 - ✓ Focus on Delaware Basin - ramp in volumes on legacy pipelines and Alpha Crude Connector
- **Leveraged To Industry Recovery (~\$650mm–\$800mm+⁽²⁾ in fee-based operating leverage)**
 - ✓ Significant growth & acquisition capex invested over last 5 years (>\$4 billion in the Permian Basin)
 - ✓ System has excess capacity and additional capability – embedded growth with minimal capex required as industry recovers
 - ✓ Significant leverage to Permian production growth
- **Visible Fee-Based Growth (drives 2018 preliminary forecast of +/- \$2.65B⁽³⁾)**
 - ✓ Capital projects (Diamond, Fort Sask., Cactus/BridgeTex expansions, etc.)
 - ✓ Acquisitions (Alpha, Advantage, Canadian NGL)
 - ✓ MVC step-ups (also pursuing additional contractual support based on identified shipper demand)

⁽¹⁾ Calculation illustrates potential Permian Basin crude oil production growth (est. 2019 avg. production vs. est. 2017 avg. production). Source: PAA Estimates, Drilling Info

⁽²⁾ Includes \$300-400mm of CAPEX per year over the next few years

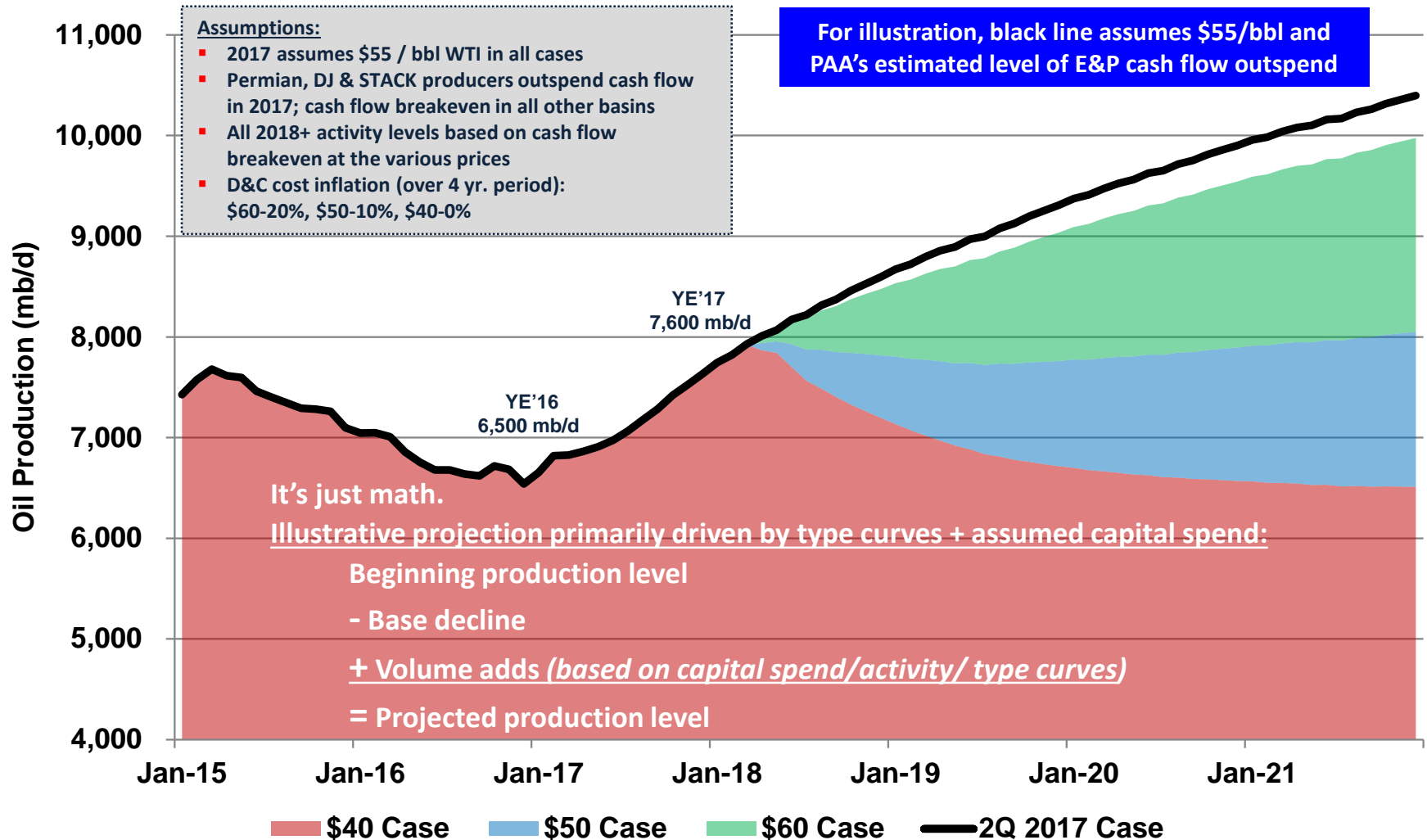
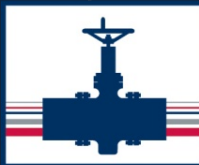
⁽³⁾ PAA's preliminary Adjusted EBITDA forecast as of May 24th, 2017

Crude Oil Fundamentals Update



Illustrative Lower 48 Onshore Production

Based On Regional U.S. Cash Flow Reinvestment At Various Crude Prices



Source: Drilling Info, PAA Estimates

Note: Chart is illustrative and represents a mathematical output resulting from various inputs and assumptions (not a production forecast)

U.S & Canada Crude Oil Production Could Increase ~2.7 mmb/d From YE 2016 To YE 2018, 50% Of Which Is In The Permian Basin



- 2Q 2017 Case assumes \$55 WTI and producers outspend cash flow as follows:

% Outspend	Permian	Eagle Ford	STACK	DJ	Williston	Total Outspend
2017	20%	0%	60%	20%	0%	~\$8.5 B
2018	20%	10%	50%	20%	10%	~\$12.0 B

2Q 2017 Case				Δ from 2016 to 2018	
Production Area (mb/d)	YE'15	YE'16	YE'18	(mb/d)	%
Permian Basin	1,870	2,140	3,440	1,300	61%
STACK	90	110	305	195	177%
Eagle Ford	1,460	1,170	1,495	325	28%
DJ Basin	330	295	435	140	47%
Williston Basin	1,220	1,010	1,200	190	19%
All Other Areas	2,190	1,940	1,855	(85)	-4%
GoM/Gulf Coast	2,065	2,125	2,155	30	1%
Total U.S.	9,225	8,790	10,885	2,095	24%
Western Canada	4,165	4,210	4,775	565	13%
Eastern Canada	175	185	265	80	43%
Total Canada	4,340	4,395	5,040	645	15%
Total N.A.	13,565	13,185	15,925	2,740	21%

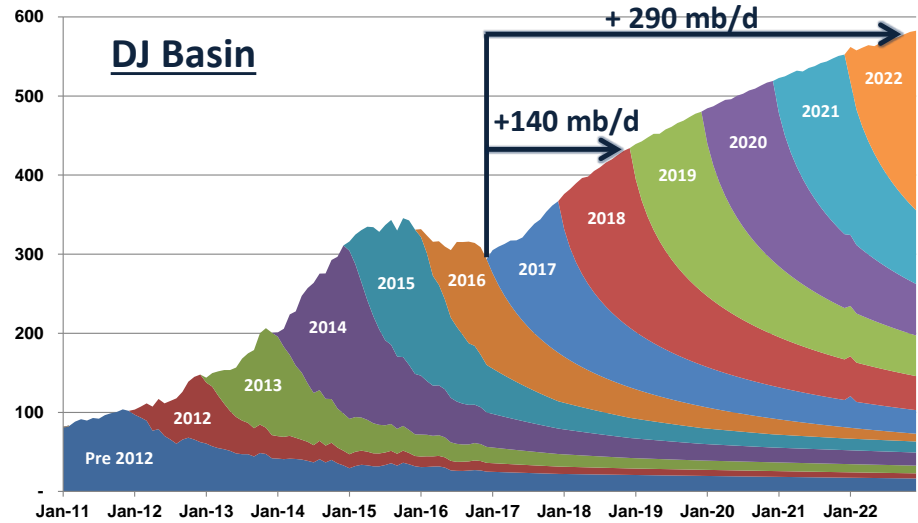
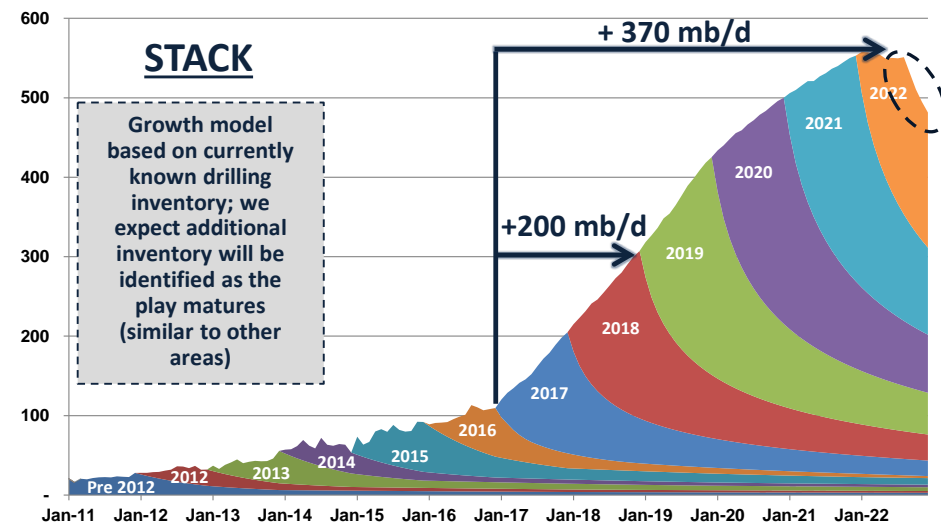
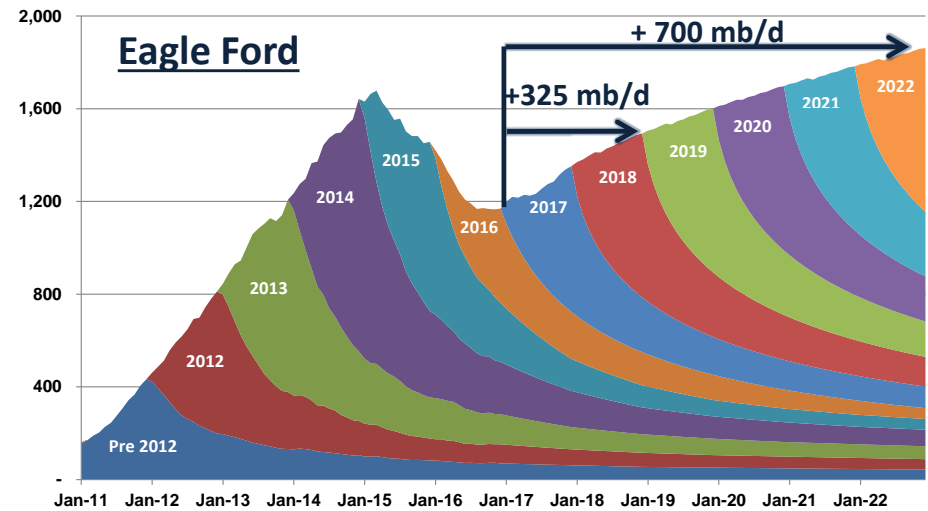
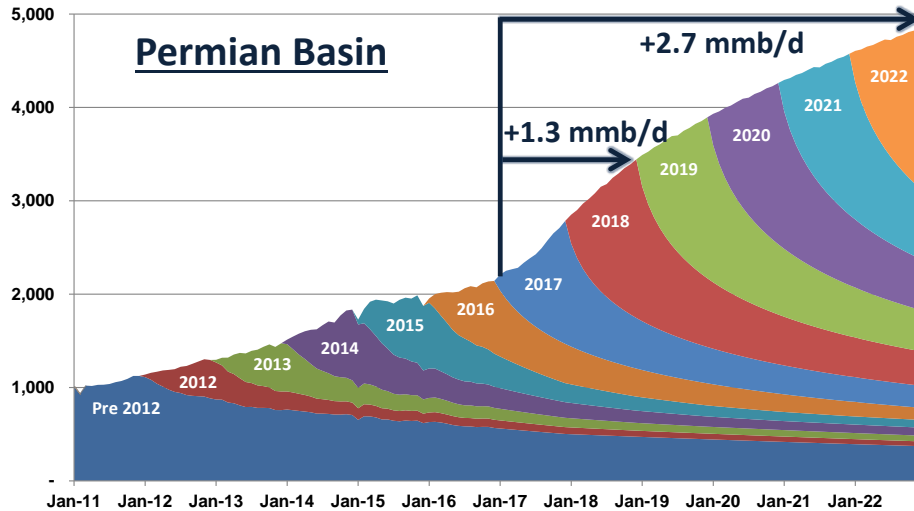
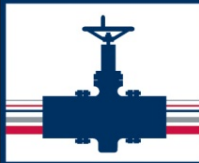
+2.00 mmb/d

(380) mb/d Y/Y

Source: Drilling Info, Wood Mackenzie (GoM), PAA Estimates

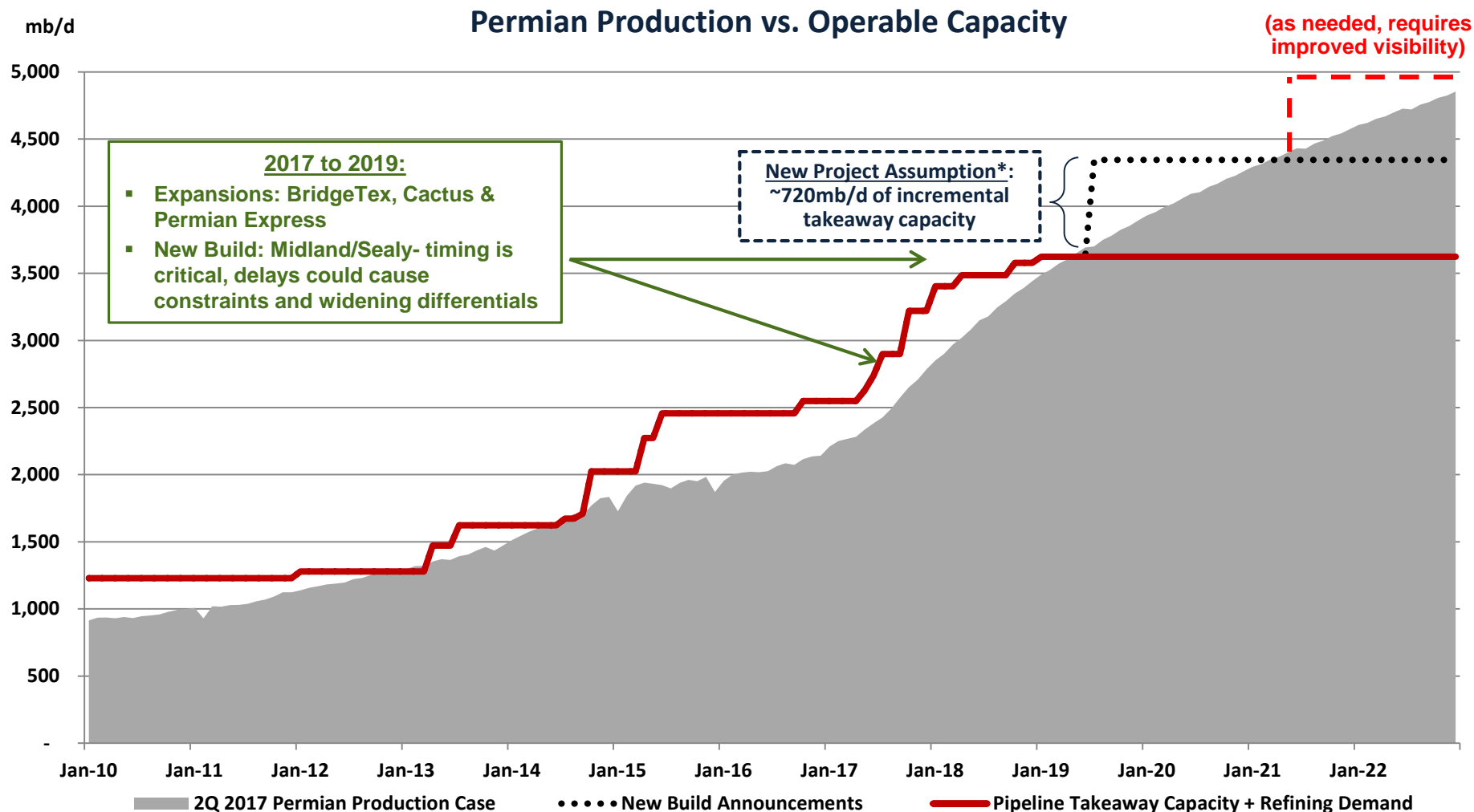
Note: Table is illustrative based on assumed capital spending and activity levels.

Permian, Eagle Ford, STACK And DJ Basins To Lead North American Production Growth



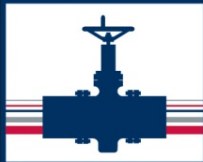
Note: Charts are illustrative and represent a mathematical output resulting from various inputs and assumptions (not a production forecast)

Permian Production Growth Expectations Driving New Investment In Takeaway Capacity

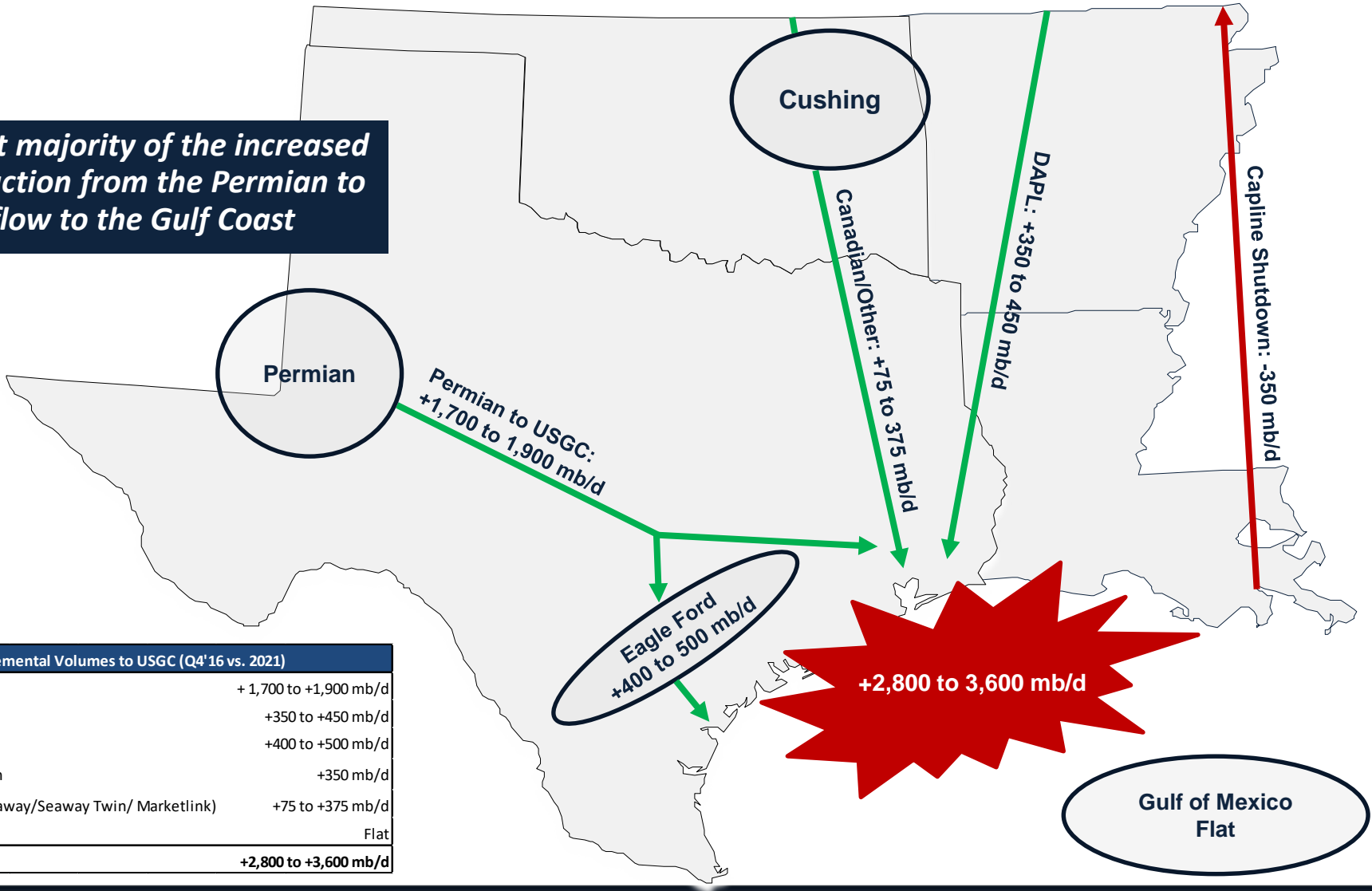


*Represents PAA's current assessment of additional takeaway capacity projects to be completed. Note: Operable Capacity assumes average 22 of 24 hour day

Incremental Volume Flowing To The U.S. Gulf Coast Will Require Export, Pressuring Market Clearing Price In The Gulf



Expect majority of the increased production from the Permian to flow to the Gulf Coast



Incremental Volumes to USGC (Q4'16 vs. 2021)	
Permian	+ 1,700 to +1,900 mb/d
DAPL	+350 to +450 mb/d
Eagle Ford	+400 to +500 mb/d
Capline Shut Down	+350 mb/d
Canada/Other (Seaway/Seaway Twin/ Marketlink)	+75 to +375 mb/d
Gulf of Mexico	Flat
Total	+2,800 to +3,600 mb/d

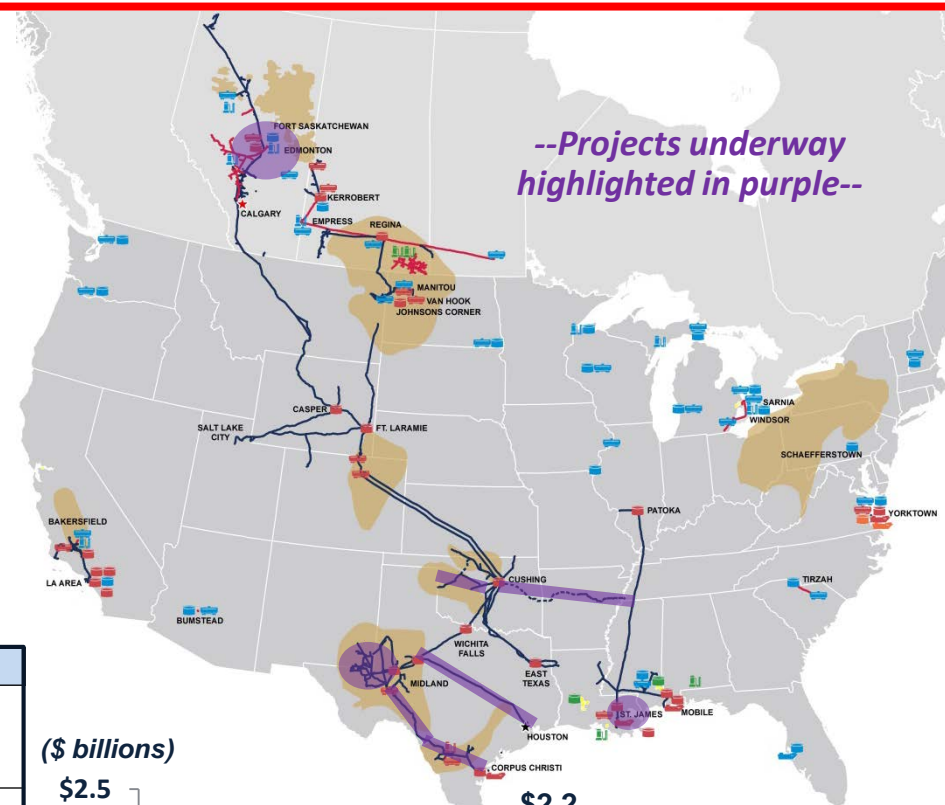
PAA's Strategic Positioning



PAA Is Completing A Multi-Year Capital Program That Will Drive Cash Flow Growth



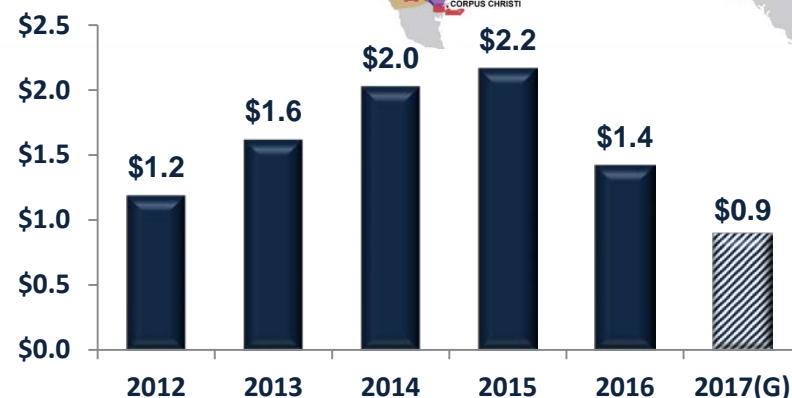
- Diamond Pipeline JV
- Permian Basin area gathering systems and connections- includes Alpha gathering system
- Fort Sask facility projects
- STACK JV expansion
- Additional crude storage capacity – Cushing, St. James & Patoka



2017 (G) Expansion Capital

(\$ millions)	MVC / Contractual Support	2017(G)	In Service Timing
Diamond Pipeline	Yes	\$300	4Q17
Permian Basin Area Systems	Yes	150	1Q17 – 3Q18
Fort Sask. Facility Projects	Yes	90	1Q17 – 2Q18
STACK Expansion	Yes	50	4Q17
Cushing Terminal Expansions	Yes	30	4Q17
St. James Terminal Projects	Yes	20	2Q17 – 4Q18
Other Projects		260	1Q17 – 2018+
		\$900	

(\$ billions)



Note: Map contains only most significant PAA assets, including recent/pending acquisitions, current projects and equity investments (excludes non-core assets in which sales are announced/pending). (G) Based on guidance furnished on 05/08/17.

PAA's Permian Basin Crude Oil System: Unmatched Capacity & Interconnectivity Providing Access To Multiple Markets



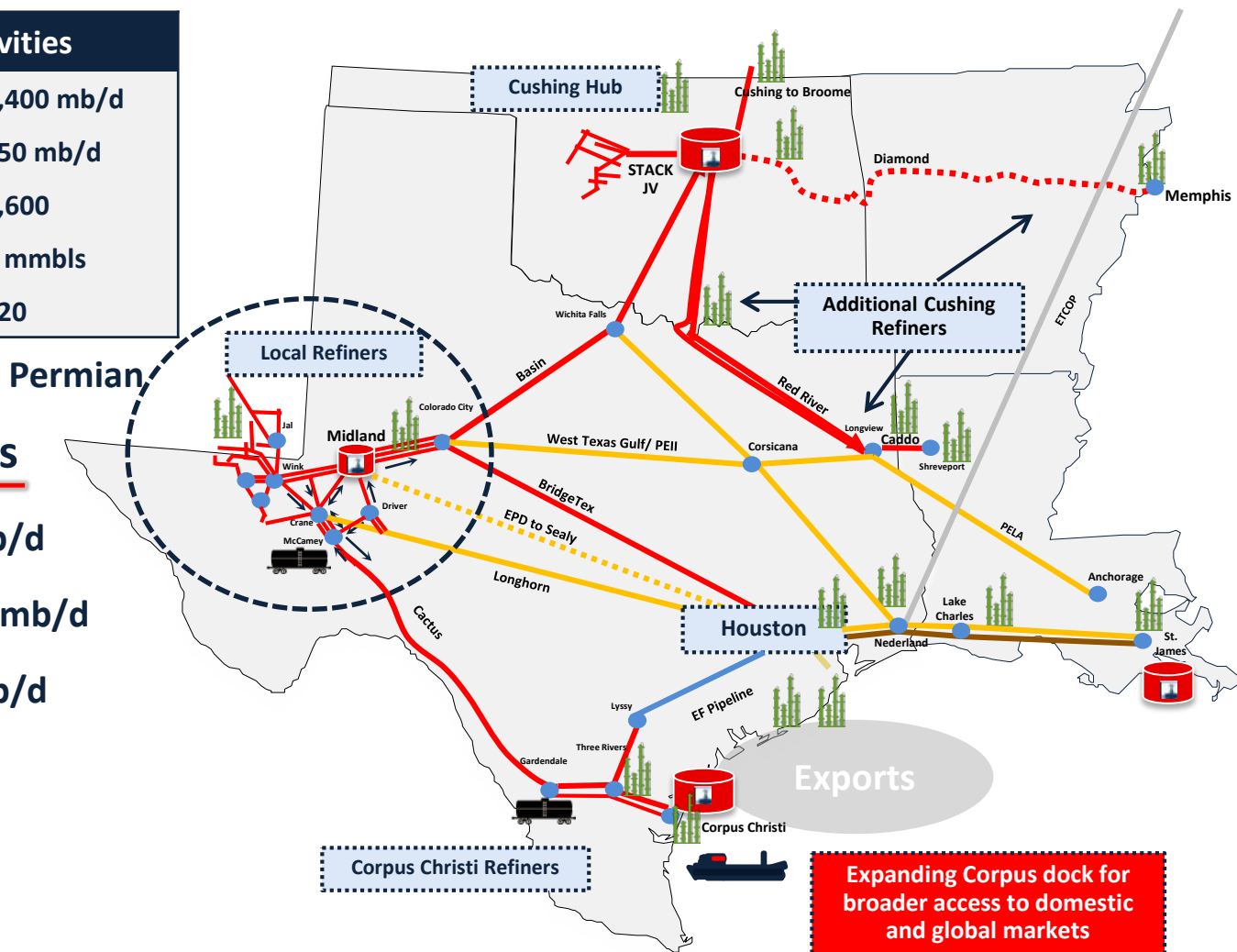
Permian Basin Assets / Activities

Transportation Volumes	~2,400 mb/d
Lease Gathering Volumes	>450 mb/d
Active Pipeline Miles	>4,600
Crude Storage Capacity	15 mmbbls
Truck Injection Stations	>120

Access To Major Markets

- Gathering Capacity: ~2 mmb/d
- Intra-basin Capacity: ~1.7 mmb/d
- Long-Haul Capacity: ~1 mmb/d

Legend	
	PAA Large-diameter Pipelines
	PAA Pipelines Under Construction
	3rd Party Export Pipelines
	PAA Facility
	PAA Rail Facility
	PAA Dock Facility
	3rd Party Refinery



**Does not include certain of recently announced and/or pending expansion opportunities*

PAA Permian Basin New Build Crude Oil Pipelines



■ Permian to Cushing, OK

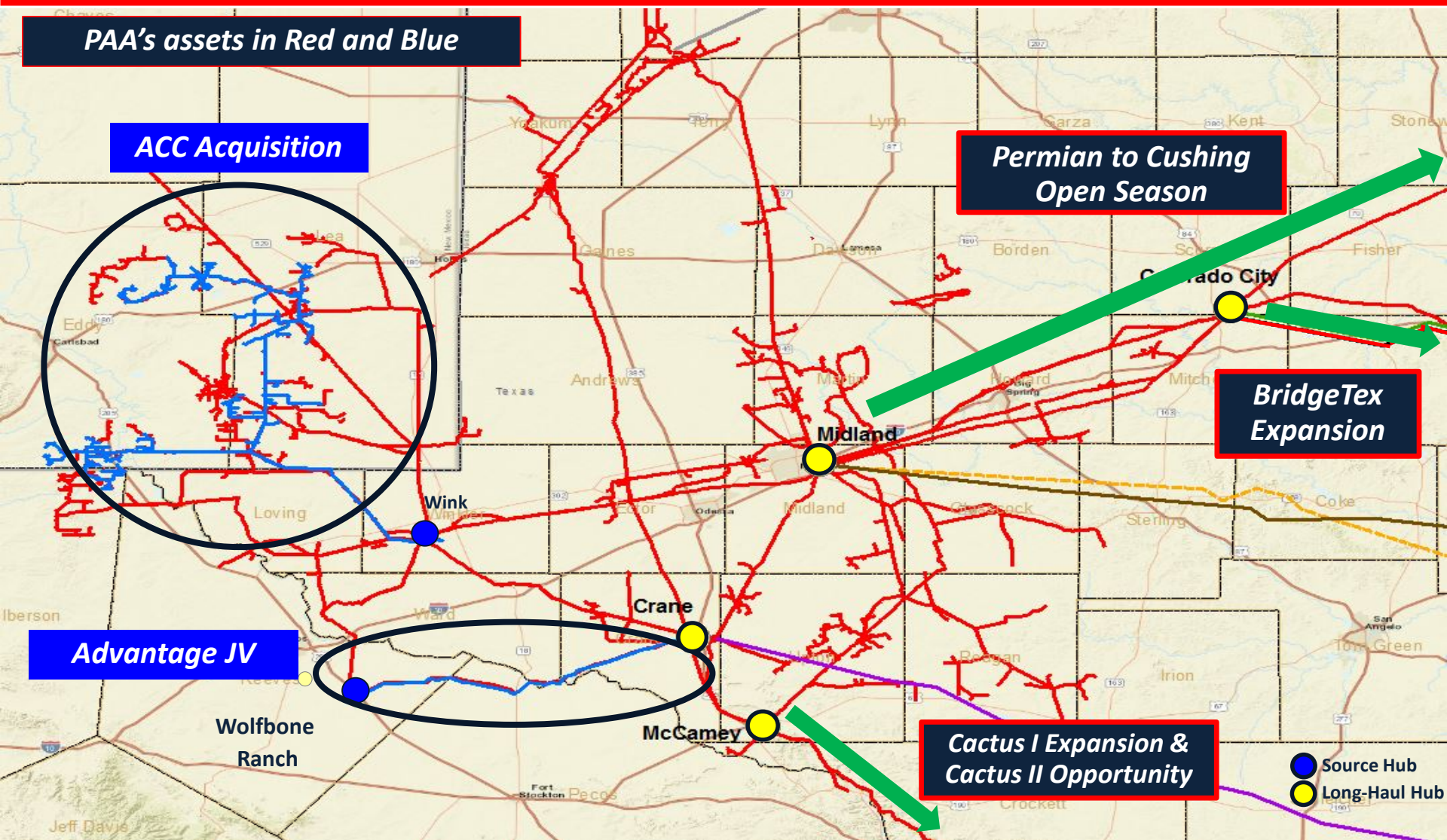
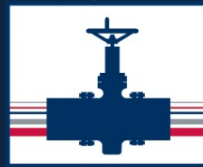
- ✓ April 18 – Announced open season for committed pipeline capacity
 - Origin points – Midland, TX and Colorado City, TX.
 - Open season volume: 350,000 b/d
- ✓ Expect to announce open season for additional committed pipeline capacity
 - Origin points in the Delaware Basin
 - Open season volume: ~110,000 b/d
- ✓ Volumes will move on a combination of expanded, new and existing pipelines
 - Phase I expected to add ~120 mb/d of capacity
 - Phase II could add up to an additional ~400 mb/d of capacity (subject to demand)

■ Permian to Corpus Christi

- ✓ January 18 – Announced plans to increase capacity of Cactus pipeline to 390,000 b/d
 - Expand in stages over several months from 300,000 b/d to full capacity in November 2017
 - Shipper interest/demand has exceeded available capacity
- ✓ In active discussions with potential shippers to construct Cactus II Pipeline at ~500,000 b/d capacity with potential in-service date of mid-to-late 2019
 - Anticipate launching open season in the near future

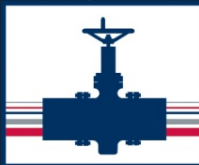
Synergies & cost benefits from the above new projects along with PAA's existing pipeline infrastructure should enable PAA to provide shippers with tariff levels and segregation capabilities superior to competing projects

Recent Permian Investments Extends Reach, Market Access & Further Optimizes PAA's Existing Permian Basin System

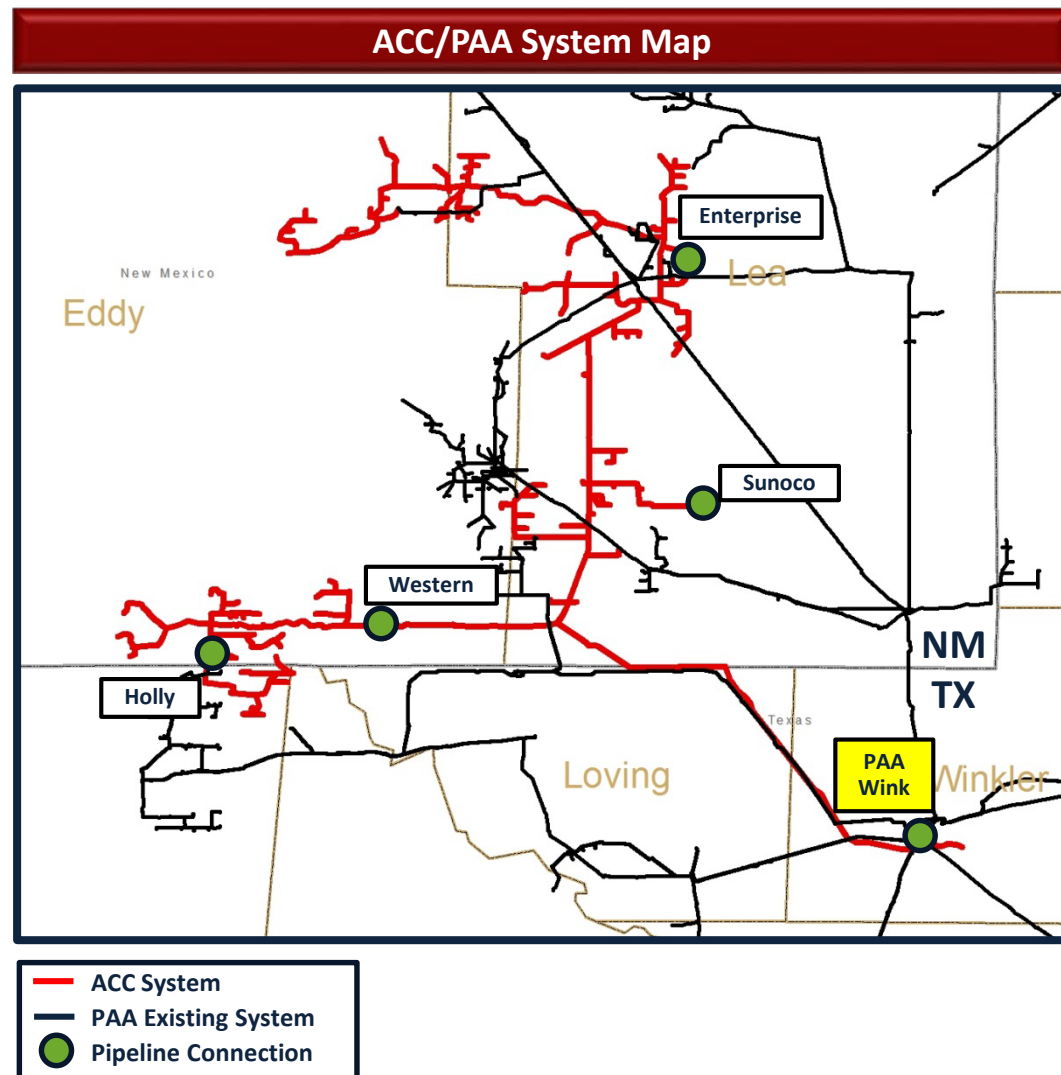


Alpha Crude Connector (ACC) Asset Update

Closed 1Q17, Integration Substantially Complete & Expansion Underway



- >300k dedicated acres containing estimated >5,000 potential drilling locations (>3 decades of inventory at current rig count)
- Expect ACC volumes to trend toward ~350 mb/d system capacity over the next several years
 - ✓ Producers maintaining high activity levels
 - ✓ Continued improvement in well performance across multiple drilling horizons
 - ✓ Multi-well pad drilling makes short-term forecasting challenging
- **Current Focus**
 - ✓ Grow volumes within dedicated acreage
 - ✓ Capture additional acreage
 - ✓ Optimize system throughput
 - ✓ Adding additional connections
 - ✓ Evaluating additional potential expansions and/or bolt-on opportunities



Diamond Pipeline Update

Mid-Continent Demand Pull Growth Project Progressing



■ Project Summary

- ✓ ~440 mile, 20" pipeline from Cushing, OK to Memphis, TN
- ✓ 50/50 JV with VLO
- ✓ Initial capacity: 200 mb/d, expandable to 350 mb/d
- ✓ 10-yr MVC with VLO with additional storage contract at Cushing

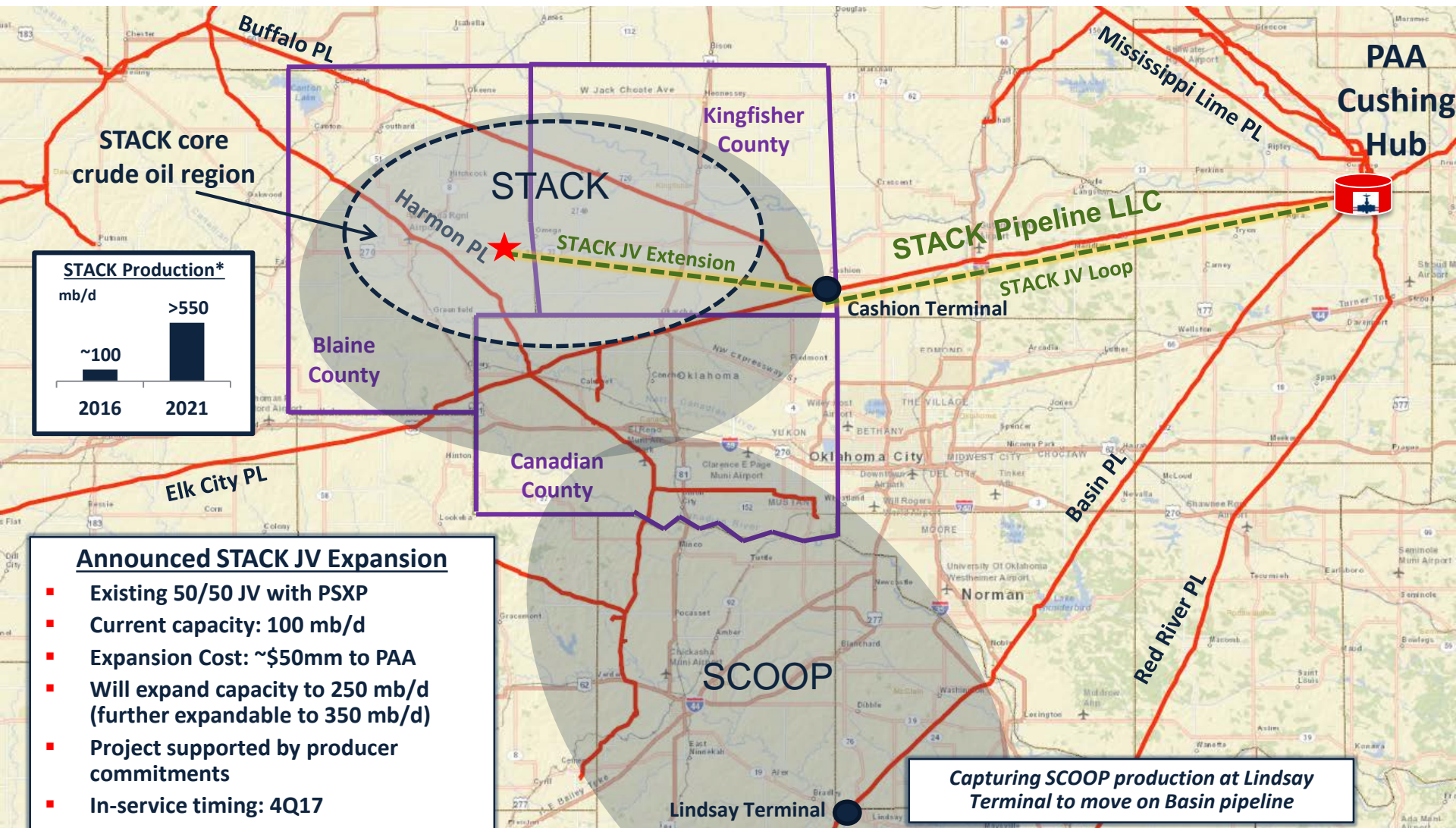
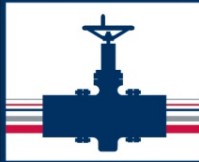
■ Status Update

- ✓ Project on track for 4Q17 in-service timing
- ✓ Pipeline construction is >50% complete and within budget
- ✓ VLO contracted Cushing tankage is complete and operational (~2 mmbbls)



Mid-Continent Growth Opportunities

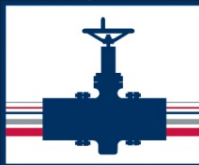
STACK & SCOOP Growth Opportunities



PAA's Operating Leverage & Outlook



PAA's Existing System Has Significant Incremental Earnings Capacity



2016 Investor Day Lookback

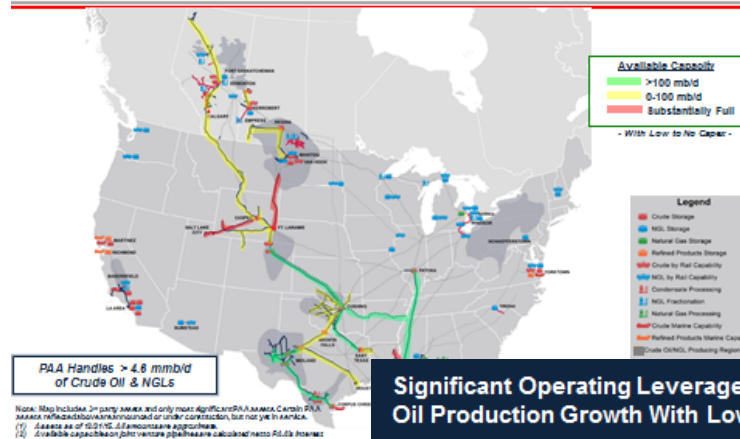
- **Estimated fee-based incremental upside over 2016 results ~\$600 mm**
- **2017 fee-based guidance up ~\$220 mm over 2016 actual results due to:**
 - ✓ *Project completions, MVC step-ups, increased utilization and acquisitions partially offset by asset sales*

2017 Investor Day Look Forward

- **Increased asset utilization can result in significant EBITDA growth at PAA with no-to-low incremental capex**
- **Permian Basin is PAA's largest area of expected earnings upside capacity**
- **PAA is also well positioned to capture Eagle Ford, STACK and DJ Basin production growth**
- **S&L segment expected to improve over time, driven by volume growth and partial recovery of margins**

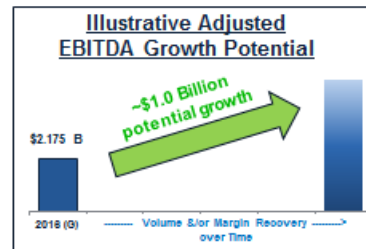
Excerpts from 2016 Investor Day

Substantial Capacity Across The System Leverages PAA To An Industry Recovery

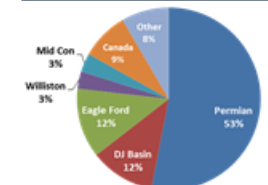


Significant Operating Leverage To North American Crude Oil Production Growth With Low-to-No Incremental Capex

- **Production volume growth in each of the basins can potentially fill a large portion of currently available pipeline capacity**
 - ✓ PAA captures reasonable share of production growth in each respective basin
- **Supply and Logistics segment has potential for additional margin as a result of a return to a more balanced market**



Transportation & Facilities (1) (~\$600mm)



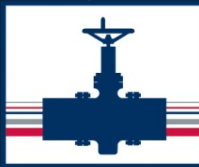
Supply & Logistics (~\$400mm)



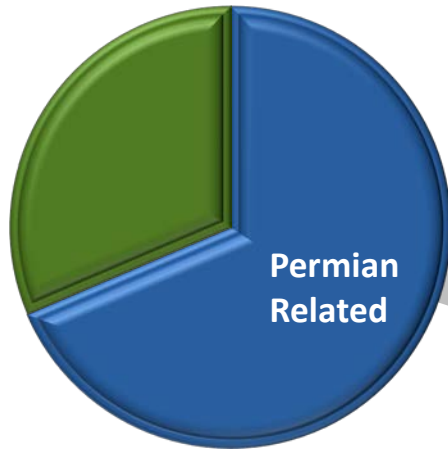
(1) Represents PAA's estimate of cash flow increase over 2016 associated with potential production growth in the U.S. and low-to-no incremental capex assumptions for wellhead assets in Canada.

PAA's Fee-Based Operating Leverage Illustration

Potential Growth Over 2017 Guidance With Recovery



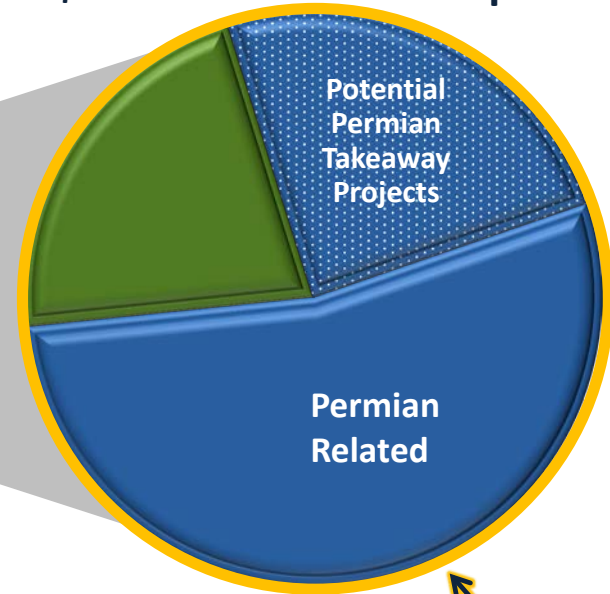
Current estimate with no-to-low add'l CAPEX
~\$650mm Potential Upside



Key Drivers

- Permian volume growth
- Recent acquisitions / project completions
- Updated outlook on asset utilization, partially offset by increased tariff competition

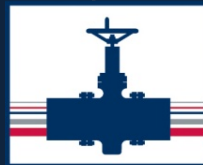
Including additional growth CAPEX
~\$800+mm Potential Upside



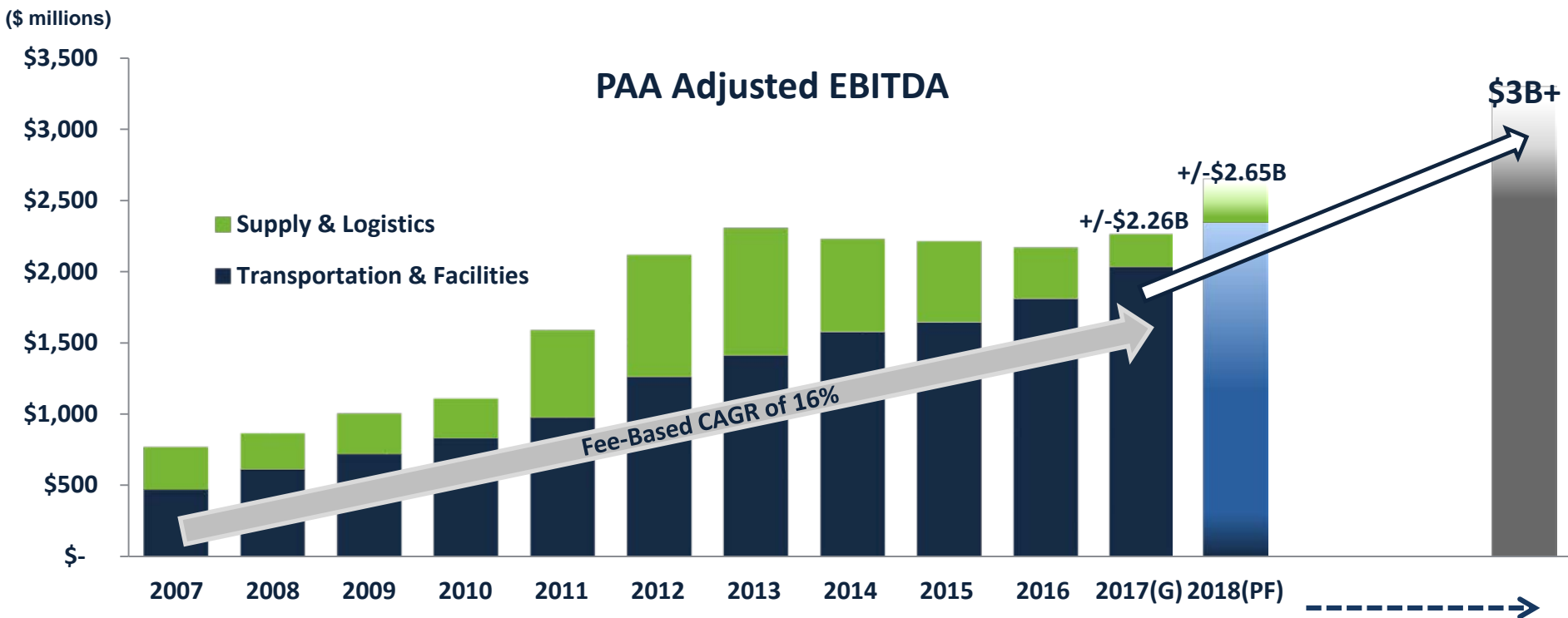
Expanding long-haul capacity creates value and facilitates additional volume pull-through on PAA's gathering systems

Note: Additional growth CAPEX case reflects updated Permian Basin outlook since 2016 Investor Day and includes additional \$300-400mm of CAPEX per year over the next few years.

Operating Leverage Provides Potential For PAA EBITDA Of \$3B+ Over The Next Several Years



- PAA's operating leverage drives growth potential in fee-based segments
 - ✓ Builds on historical fee-based growth and continues to improve quality of cash flow
- S&L expected to improve over time, driven by volume growth and partial recovery of margins



Key Takeaways



- North American crude oil production growth to be lead by the Permian Basin
- PAA's Permian Basin assets provide an unmatched position in the largest growth basin
- Completion of key projects and expansions drives fee-based growth
- PAA's existing assets can accelerate capture of significant incremental earnings with low-to-no incremental capital
- Permian production outlook provides additional growth capital opportunities, further expanding PAA's operating leverage



Q&A