

EPNG / Mojave/ Sierrita 2017-18 Winter Preparedness

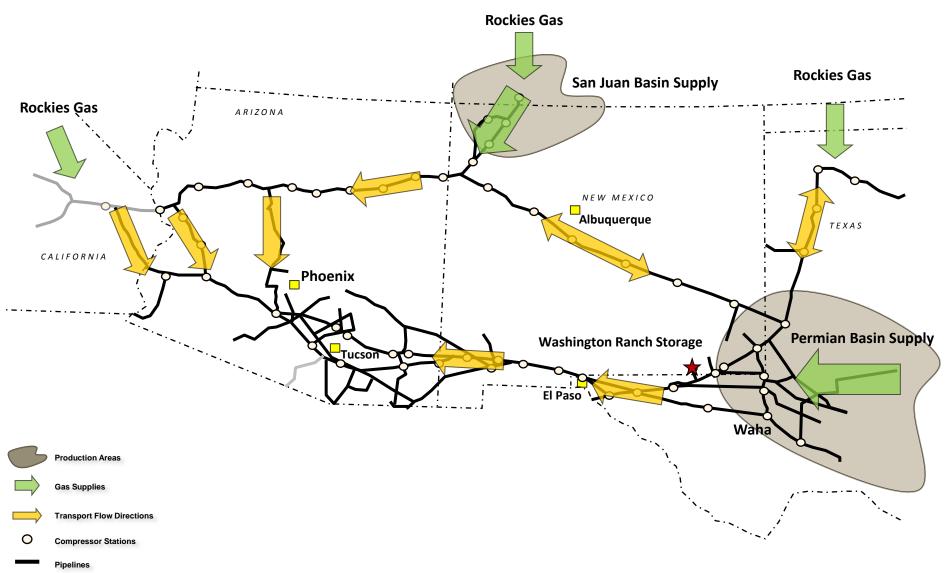
Kinder Morgan Western Region Pipelines October 26, 2017



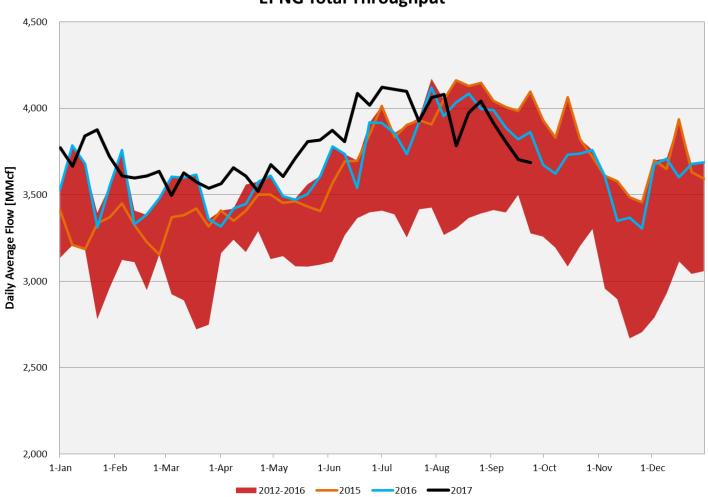
- Operations Overview
- Emergency Communication
- Winter Preparedness Planning
- Maintenance Planning Process
- Remaining 2017 Planning Maintenance
- Gas Control Contacts

Operations Overview

EPNG System Overview Supply Locations and Flow Direction

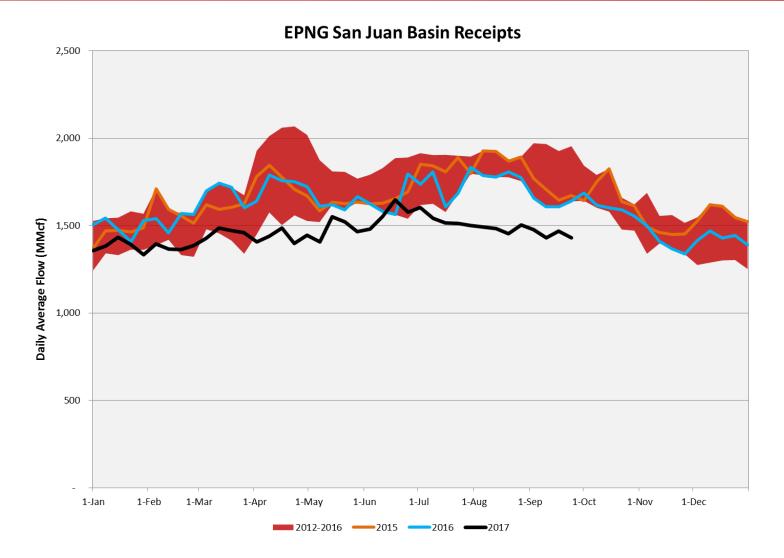


EPNG Total System 2012-2017 Throughput Trends (MMcf/d)

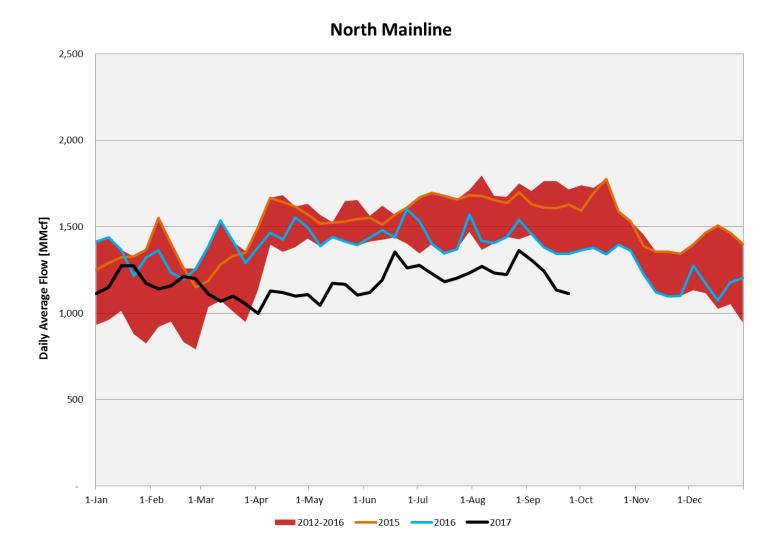


EPNG Total Throughput

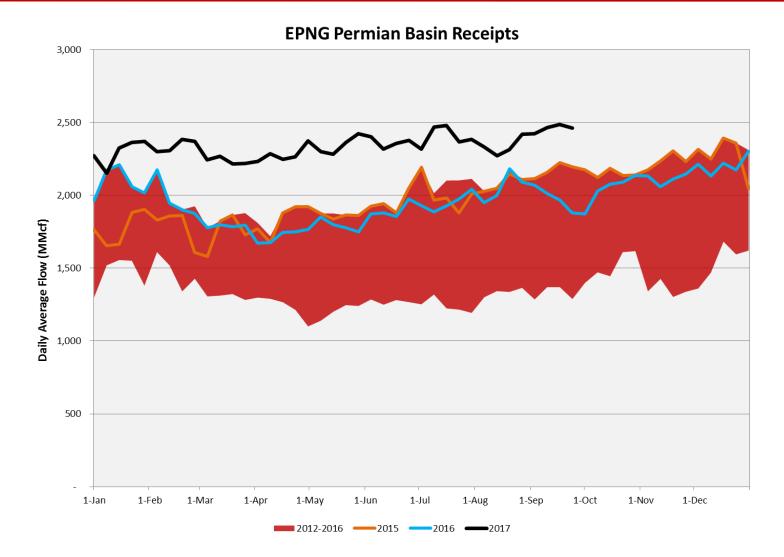
San Juan Basin 2012-2017 Throughput Trends (MMcf/d)



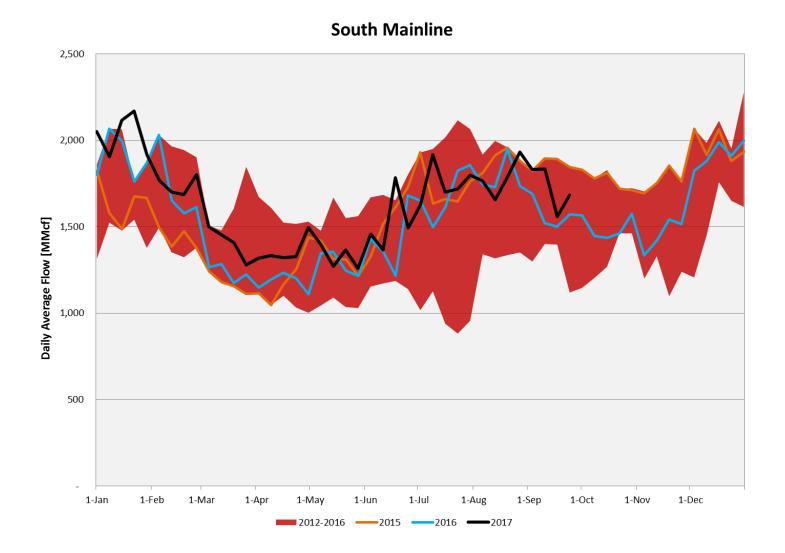
North Mainline 2012-2017 Throughput Trends (MMcf/d)



Permian Basin 2012-2017 Throughput Trends (MMcf/d)



South Mainline 2012-2017 Throughput Trends (MMcf/d)



SOC/COC* Summary

Condition Type (Number of Days)							
	Warr	nings	SC	C	CC		
	DRAFT	PACK	DRAFT	PACK	DRAFT	PACK	
2013	14	7	1	1	1	0	
2014	15	15	9	0	0	0	
2015	9	19	2	3	3	0	
2016	12	10	7	2	0	0	
2017 ^(YTD)	12	0	5	0	0	0	

dition Type (Number of Deve)

Emergency Communications

- Shipper and Stakeholder Mass Communication
 - EBB Notices
 - Text messages
 - Emails to shipper-maintained group email addresses
 - Telephone message sent by EPNG to emergency contacts
 - System Status Hotline (1-855-762-0100) parties can call for a recorded status of the system (updated as needed throughout an event)
- Standard critical notice to promote quicker action
- Banner on internet homepage to alert users to an emergency

Winter Preparedness Plans

Staffing

- Gas Control is 24 x 7 x 365.
- Field technicians are on-site or on-call.
- Local Facility preparation (Begin about November 1st)
 - Vehicle inspections prepare vehicles for cold weather.
 - Two-Way Radio functional tests
 - Facility inspections with focus on weatherproofing.
 - Heat tracing, heat lamps, thermal blankets, etc.
 - Snow Removal Equipment Inspection (Where applicable)
 - Assessment of back-up power needs (existing stand-by generation and rental generators as deemed necessary).

Winter Preparedness Plans (Cont)

Communication and Coordination

- Customer Winter Preparedness Meeting (WebEx/conference call) October 26, 2017.
- Customer-specific winter preparedness meetings or communications.
- Monitor Weather Forecast.
- Conference Calls between Gas Control and Operations to discuss preparations.
- Shipper and Stakeholder Mass Communication via EBB notices and text messages.
- Shipper-Specific Communications.

Operational Response

- Multiple flow paths for supply to reach the market.
- Access to supply area storage: Washington Ranch, Keystone Gas Storage and Merchant Ranch Storage.
- EPNG has developed excellent working relationships with both affiliated and non-affiliated interconnecting pipelines which provide additional layers of contingency management in responding to emergency situations.

Maintenance Planning Process and Communication

Maintenance Planning Process

Annual Maintenance Planning Process

- July/August Process Begins
 - Review of annually recurring maintenance
 - Development of Pipeline Integrity project list for the next year.
 - Development of additional O&M and project related maintenance outages for the next year.
- October
 - Gas Control preliminary review.
 - Project Planning Meeting with Project Engineering , Pipeline Engineering and Operations to review global schedule.
- November
 - Gas Control Review of Global Schedule .
 - Operations meetings/concalls to resolve scheduling conflicts.
 - Preliminary capacity impact analysis by System Design for larger outages.
 - Approval of Annual Plan.

Communication to Customers

- December 15 Annual Plan for 1st Quarter posted to EBB.
- Mid-March Annual Plan updated for the remainder of the year posted to the EBB.

Maintenance Planning Process

Communication to Customers

- Annual Maintenance Plan
 - December 15 Annual Plan for 1st Quarter posted to EBB.
 - Mid-March Annual Plan updated for the remainder of the year posted to the EBB.
 - Updated as required throughout the year.

Monthly Maintenance

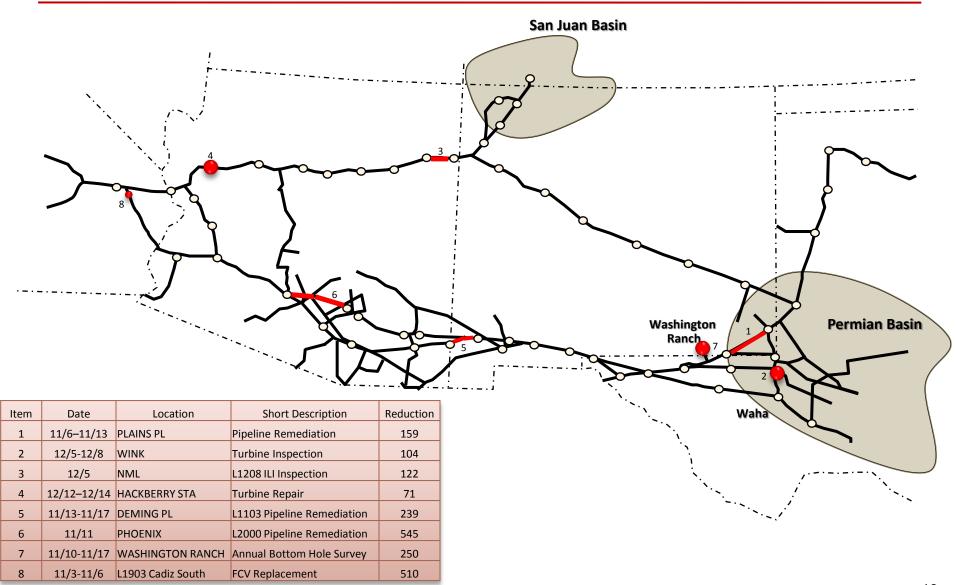
- Monthly schedule posted 9 business days before the following month.
- Updated as required prior to and during the month.

EBB

- EPNG <u>http://pipeportal.kindermorgan.com/PortalUI/DefaultB.aspx?TSP=EPNG</u>
- Mojave <u>http://pipeportal.kindermorgan.com/PortalUI/DefaultB.aspx?TSP=MOPC</u>
- Sierrita <u>http://pipeportal.kindermorgan.com/PortalUI/DefaultKM.aspx?TSP=SGP</u>

Planned Maintenance Nov 2017 – Dec 2017

November - December Maintenance Highlights



Gas Control Contacts

Gas Control Contacts

Russ Pyeatt - Manager

- (719) 520-3729 (office)
- (505) 320-4556 (cell)
- russ_pyeatt@kindermorgan.com

Dan English - Lead Controller

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- dan_english@kindermorgan.com
- Vic Villalva Maintenance Planner
 - (719) 520-4251 (office)
 - (719) 482-6914 (cell)
 - vic_villalva@kindermorgan.com