



State of Alaska Department of Revenue

Fall 2016 Production Forecast Presentation

Senate Resources Committee

January 30, 2017

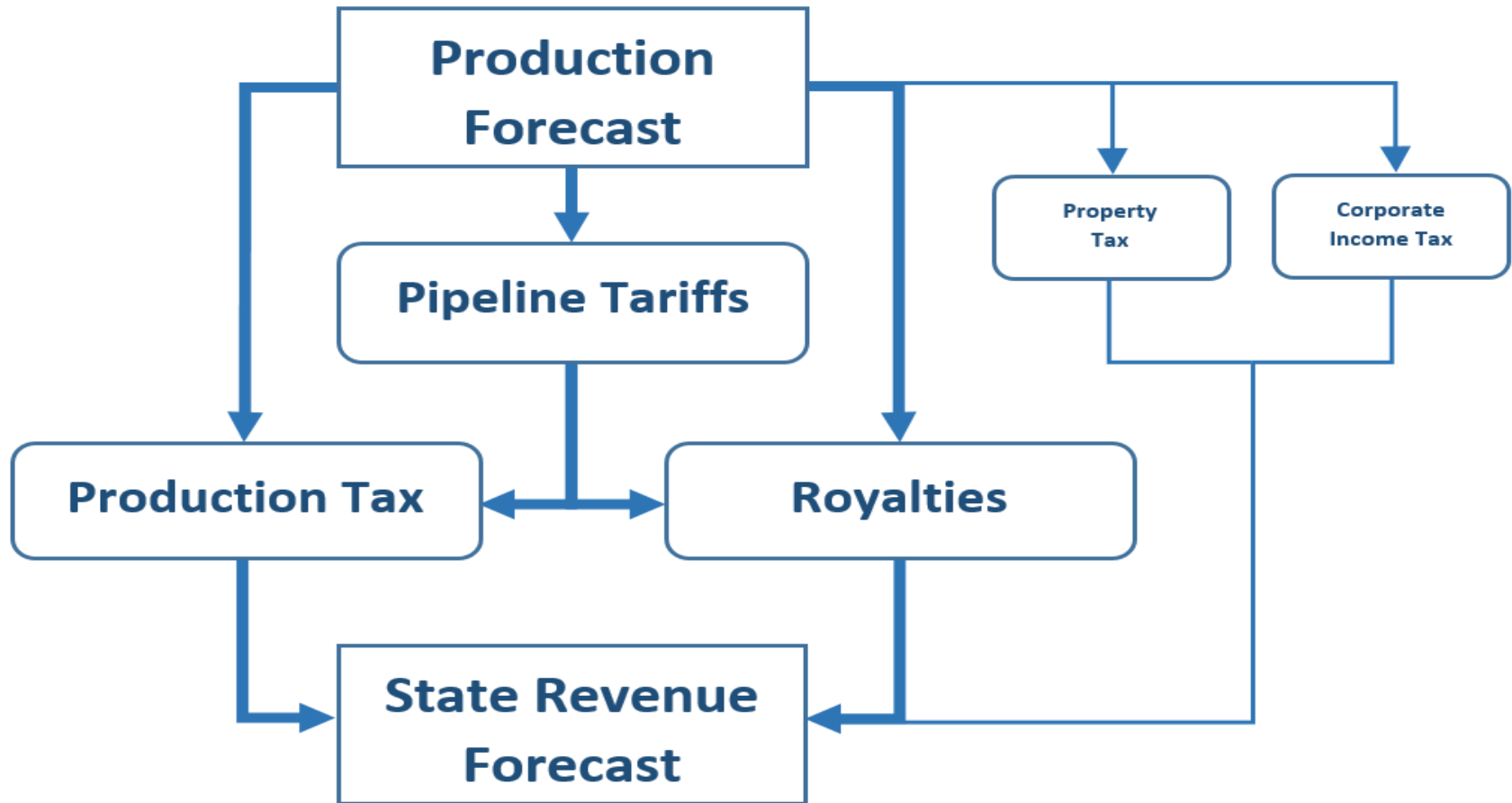
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Overview

- How the production forecast is used
- Recent history of the production forecast
- Department of Revenue (DOR) and Department of Natural Resources (DNR) roles
- Fall 2016 Production Forecast
- Technical discussion of methodology will be addressed by DNR

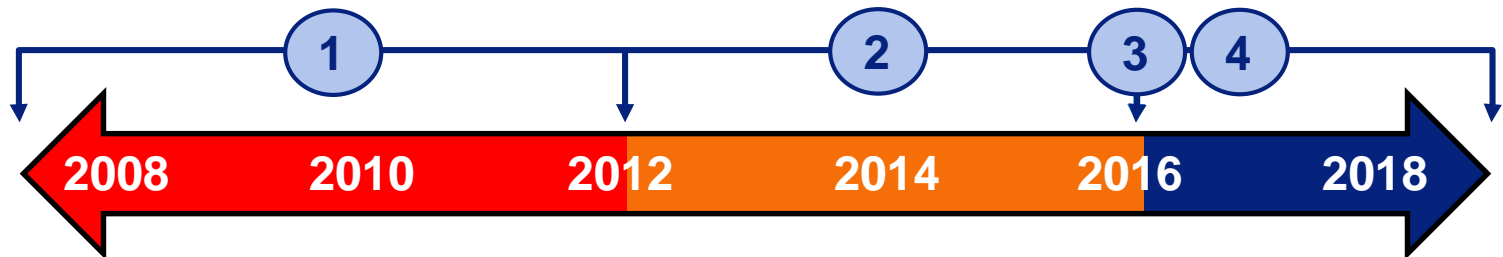
Production Forecast: What is it used for?



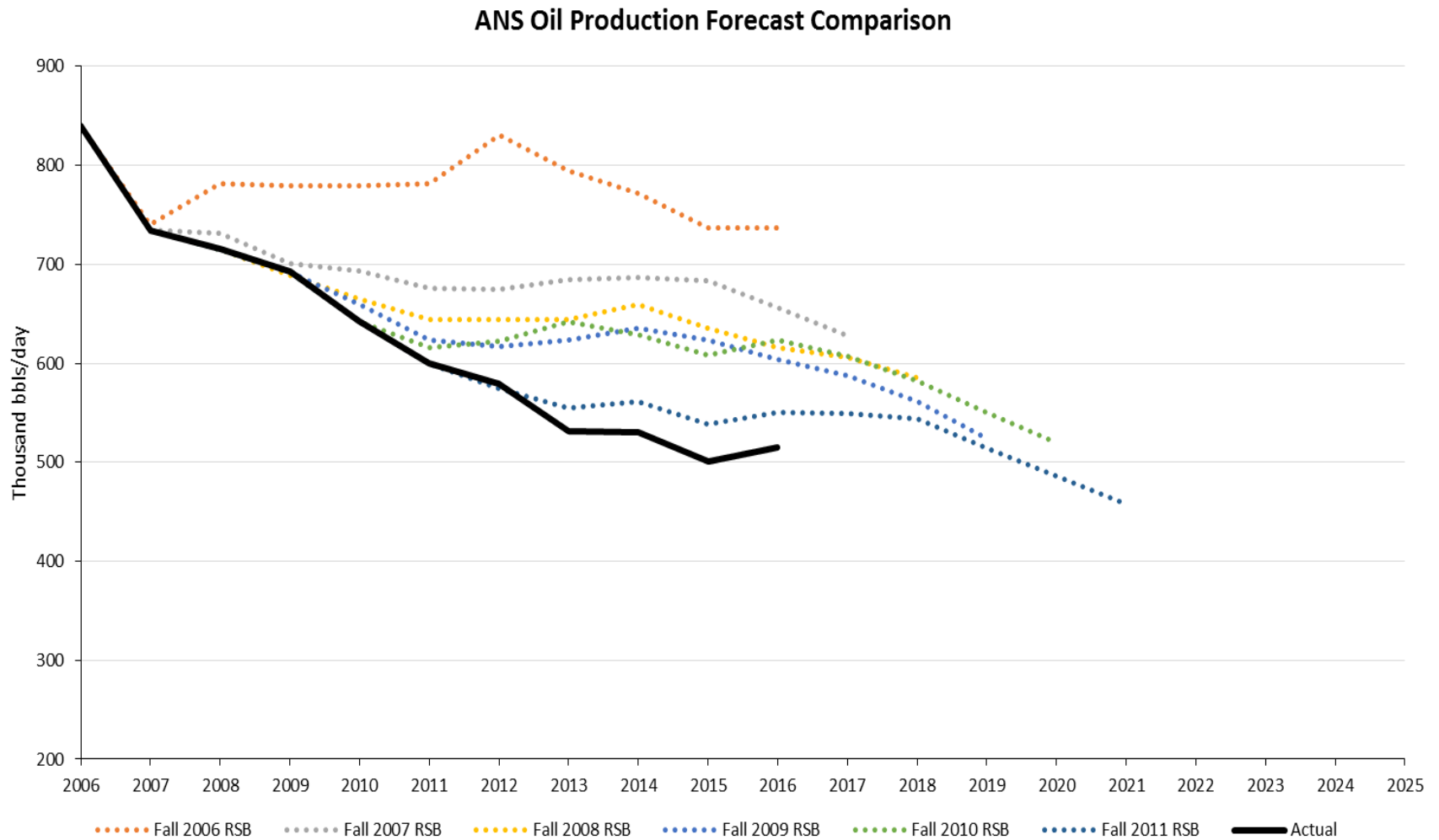
- Used to provide information to policy makers and the general public.

Production Forecast: An Evolution

- 1) Prior to fall 2016, the Department of Revenue used an outside consultant to develop the production forecast.
- 2) Beginning with fall 2012, the Department of Revenue added risk adjustments to the consultant's forecasts.
- 3) The consultant contract expired Summer of 2016.
- 4) Starting with fall 2016, the Department of Revenue collaborated with the Department of Natural Resources to develop the production forecast.

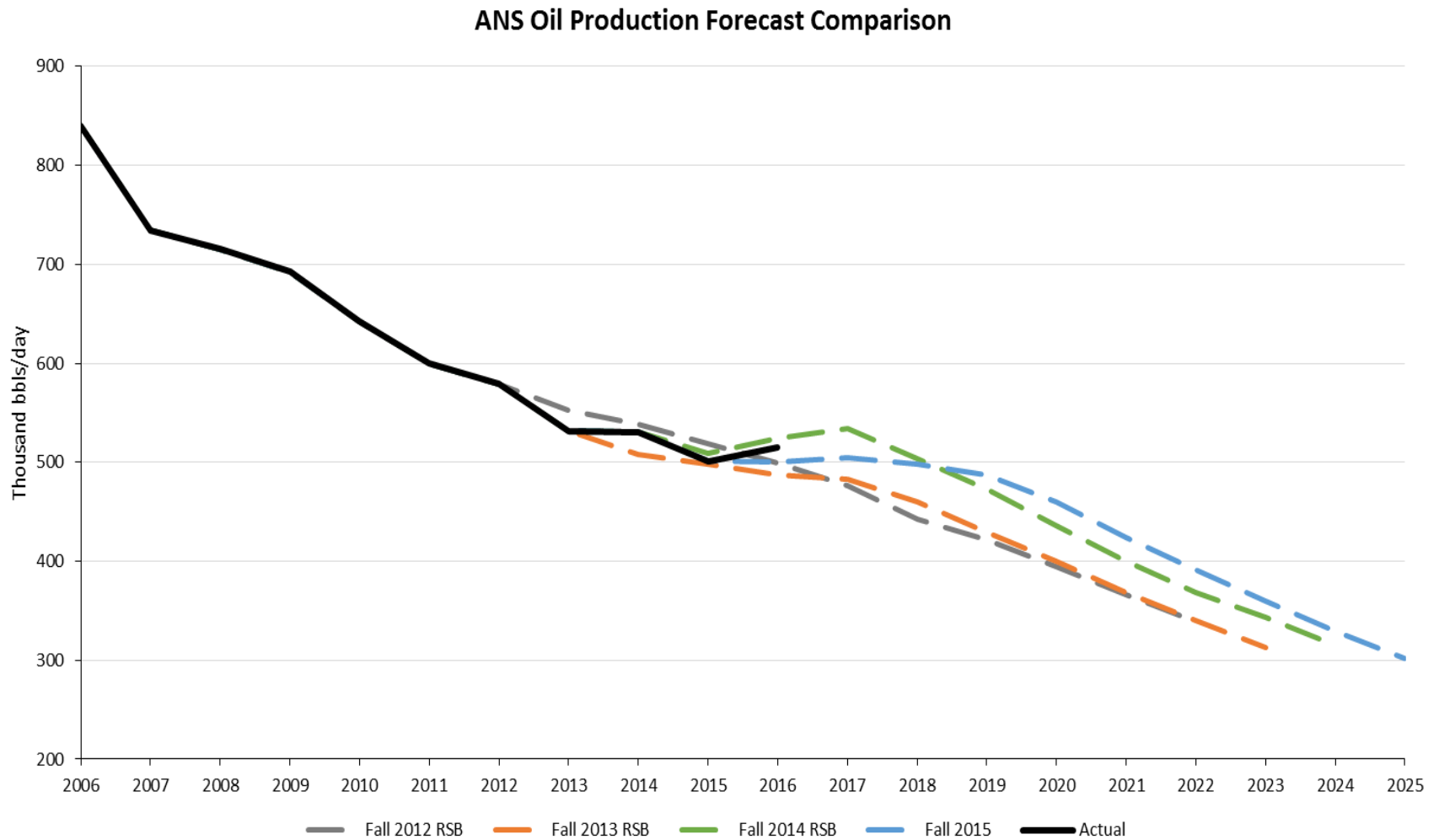


Historical Forecasts: Pre 2012



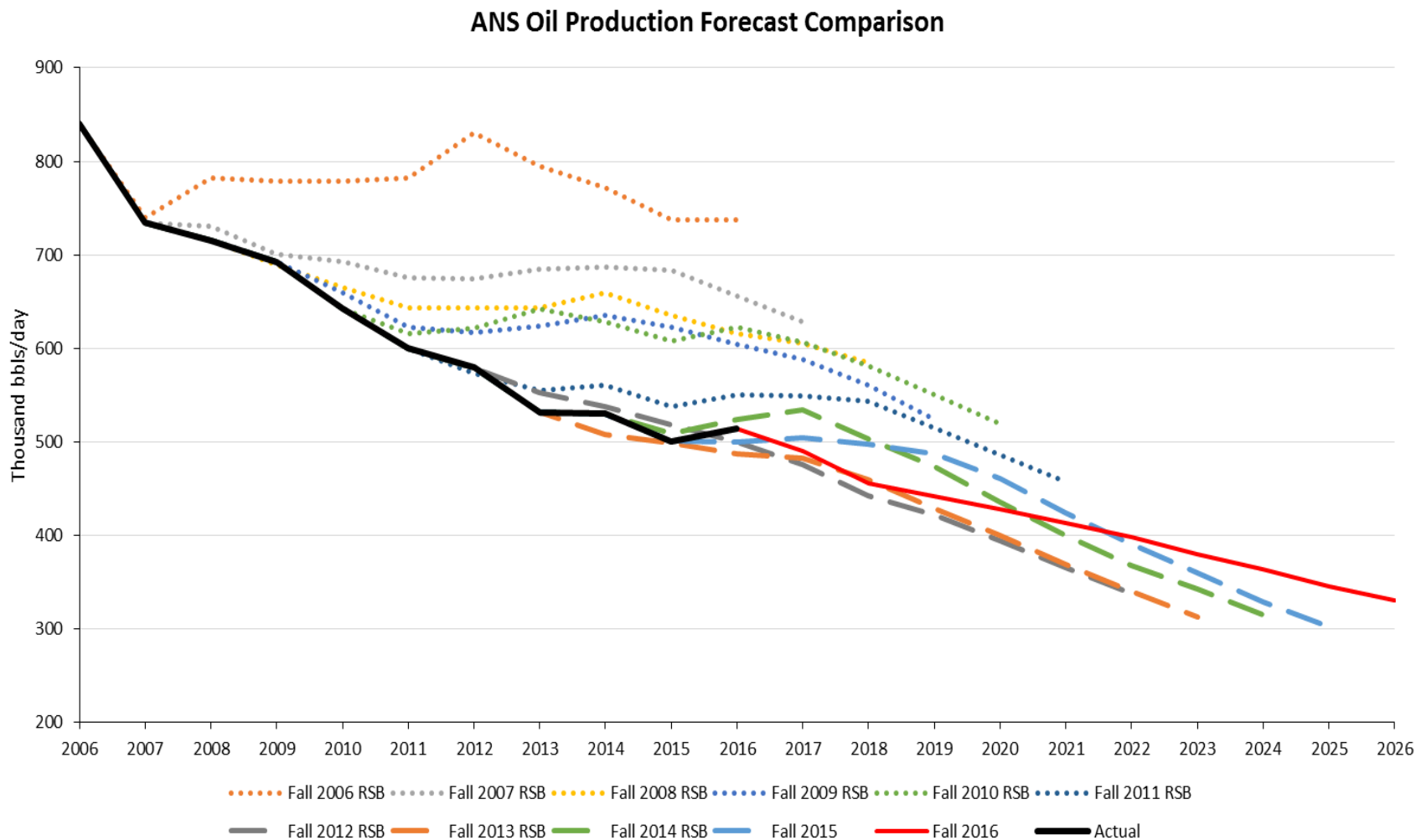
Source: Department of Revenue - Revenue Sources Book Fall 2006-2011

Historical Forecasts: 2012-2015



Source: Department of Revenue - Revenue Sources Book Fall 2012-2015

Historical Forecasts: 2006-2016



Source: Department of Revenue - Revenue Sources Book Fall 2006-2016

Production Forecast: Who Does What?

Department of Revenue

- Publishes the forecast:
 - Conducts operator interviews and development surveys.
 - Adjusts DNR forecast for seasonality and replaces initial months with actuals.
 - Aggregates DNR data to show production by unit, area, and total.
- Creates a revenue forecast

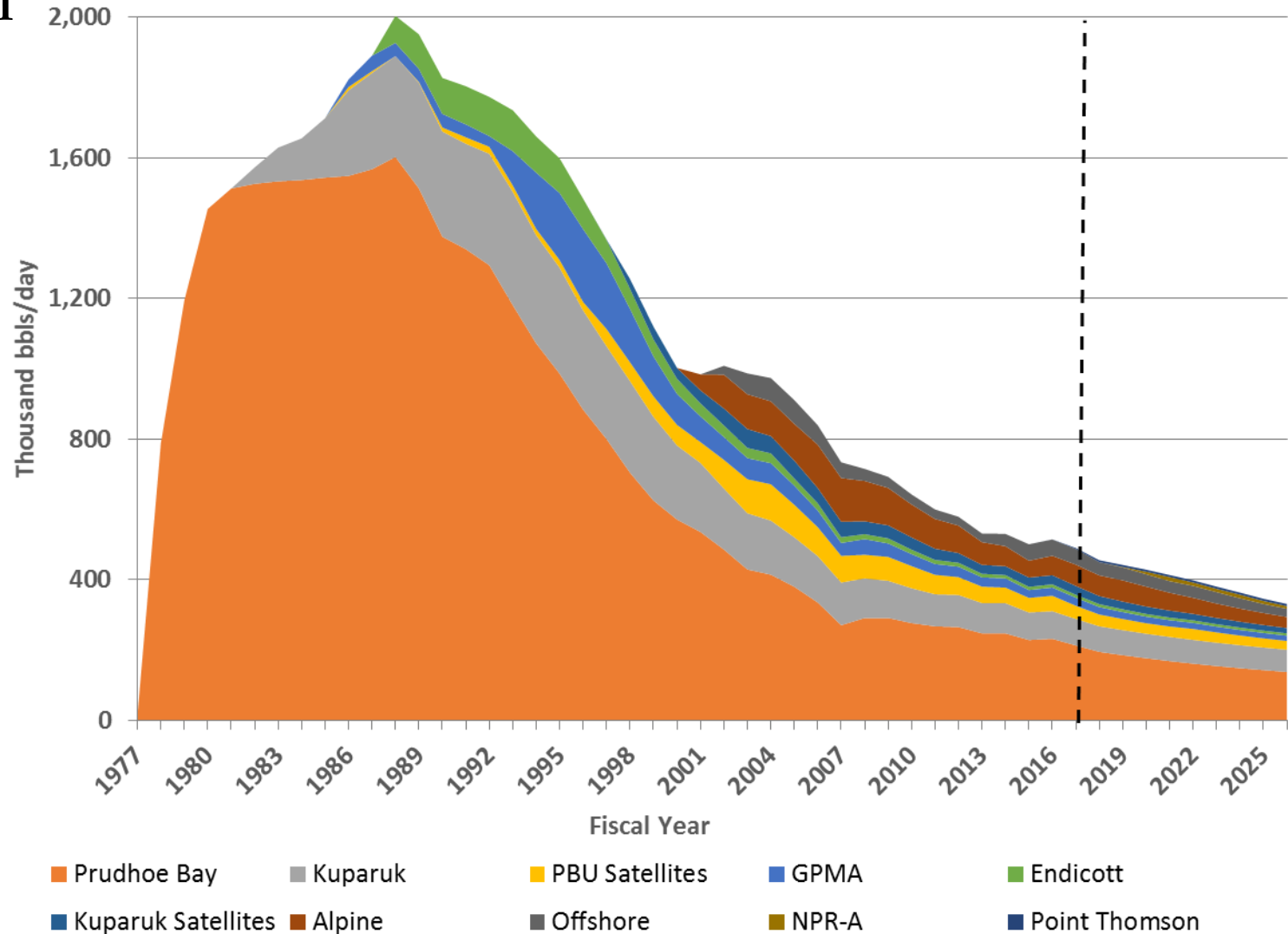
Department of Natural Resources

- Produces the forecast:
 - Reviews surveys, plans of development, etc.
 - Determines proper forecasting methods.
 - Creates models to account for reservoir and well characteristics.
 - Delivers a probabilistic forecast of barrels of oil per day by pool.

Fall 2016 Production Forecast



PRODUCTION FORECAST: ANS History and Forecast by Pool



Source: Department of Revenue - Revenue Sources Book Fall 2016

PRODUCTION FORECAST: Categories

Volumes from Currently Producing (CP):

- Oil from all currently producing pools.

Volumes from Under Development (UD):

- Ongoing development wells in existing, mature fields above and beyond CP and expected to produce within 1 year.

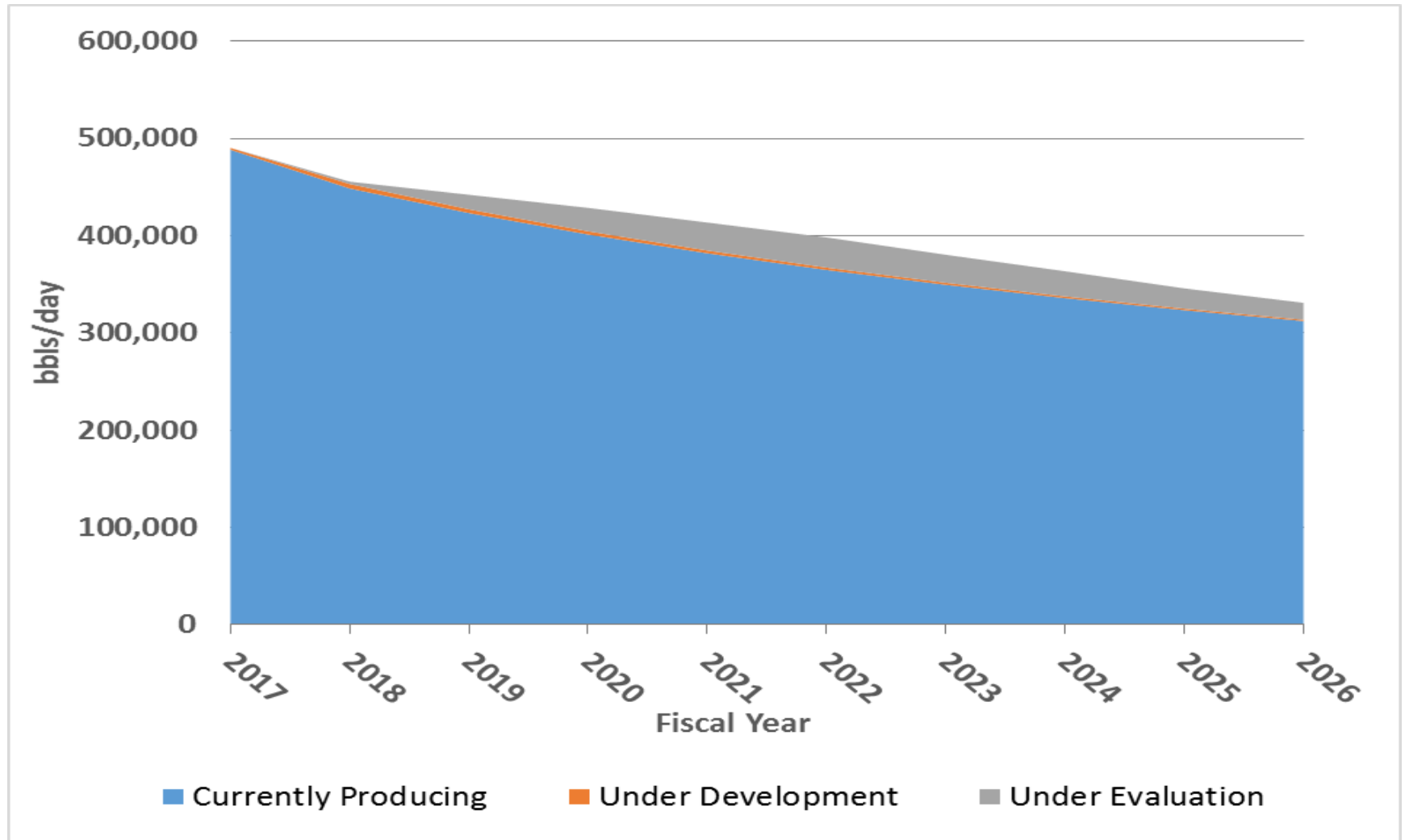
Volumes from Under Evaluation (UE):

- New fields expected to produce within 2-5 years.

Excluded from forecast:

- First oil date greater than 5 years and very uncertain.
- Examples: Pikka, Ugnu, Placer, Tofkat, Liberty, Fiord West, Smith Bay, Willow

PRODUCTION FORECAST: ANS



Source: Department of Revenue - Revenue Sources Book Fall 2016

PRODUCTION FORECAST: DOR Cases

➤ High Case (P10):

- Based on DNR modeling, oil production would have a 10% probability of exceeding this level.

■ Official Forecast (Pmean):

- Based on DNR modeling, the average production profile that considers both high and low sides.

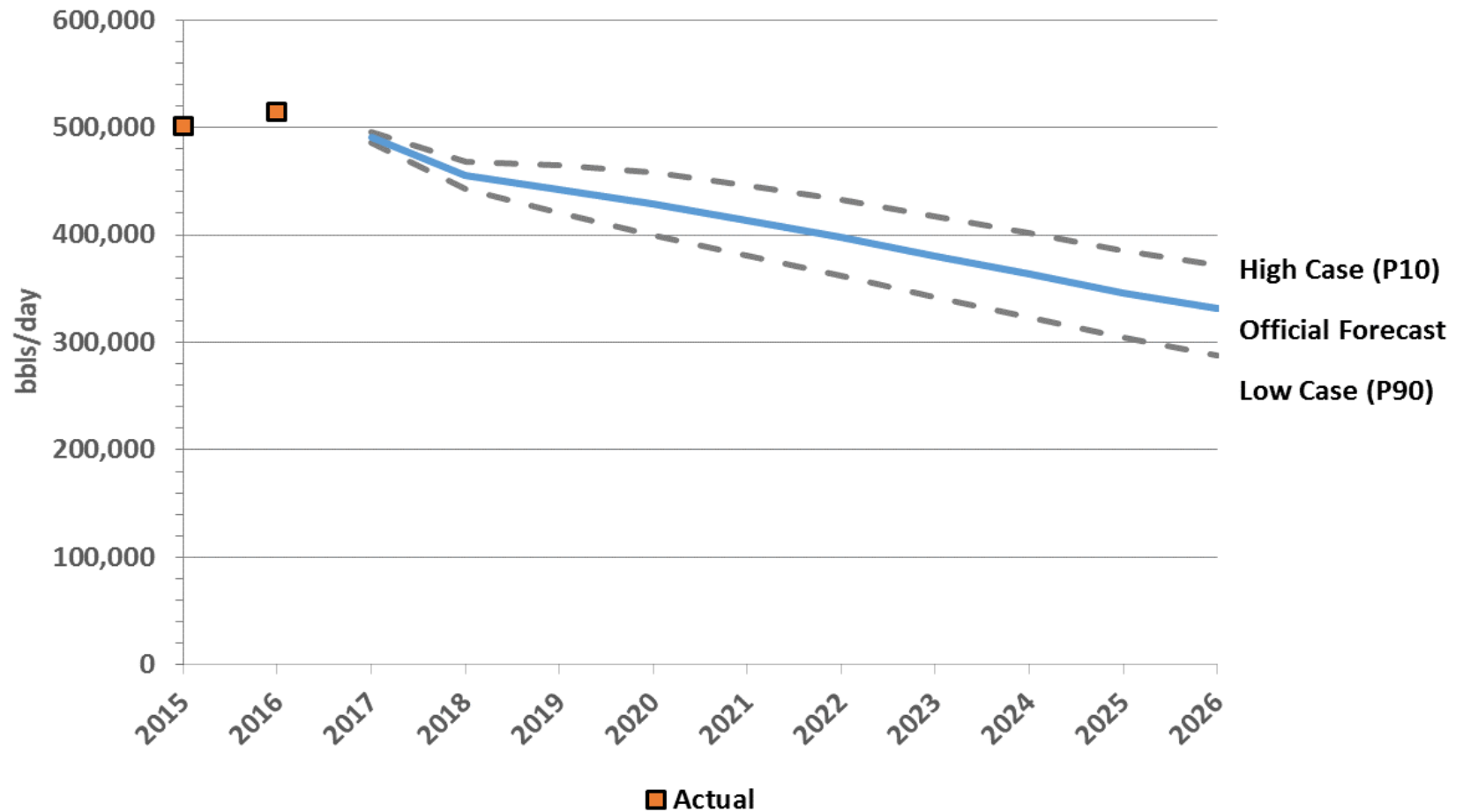
➤ Low Case (P90):

- Based on DNR modeling, oil production would have a 90% probability of exceeding this level.

➤ Note: None of the cases include any of the “Excluded from forecast window” fields.

- With these fields, production could exceed the high case.

PRODUCTION FORECAST: ANS by Case

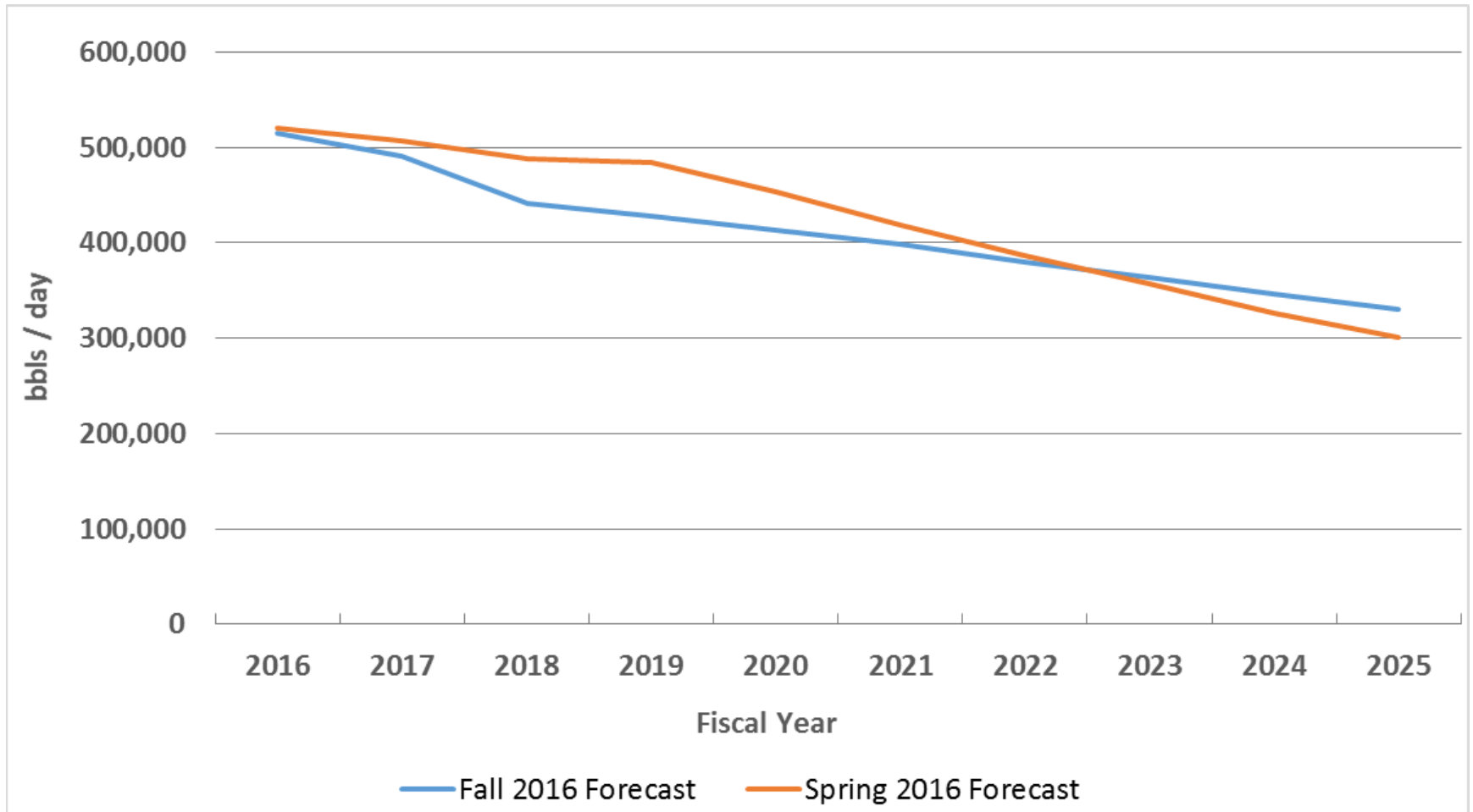


PRODUCTION FORECAST: ANS Details

Fall 2016 ANS Oil Production Forecast

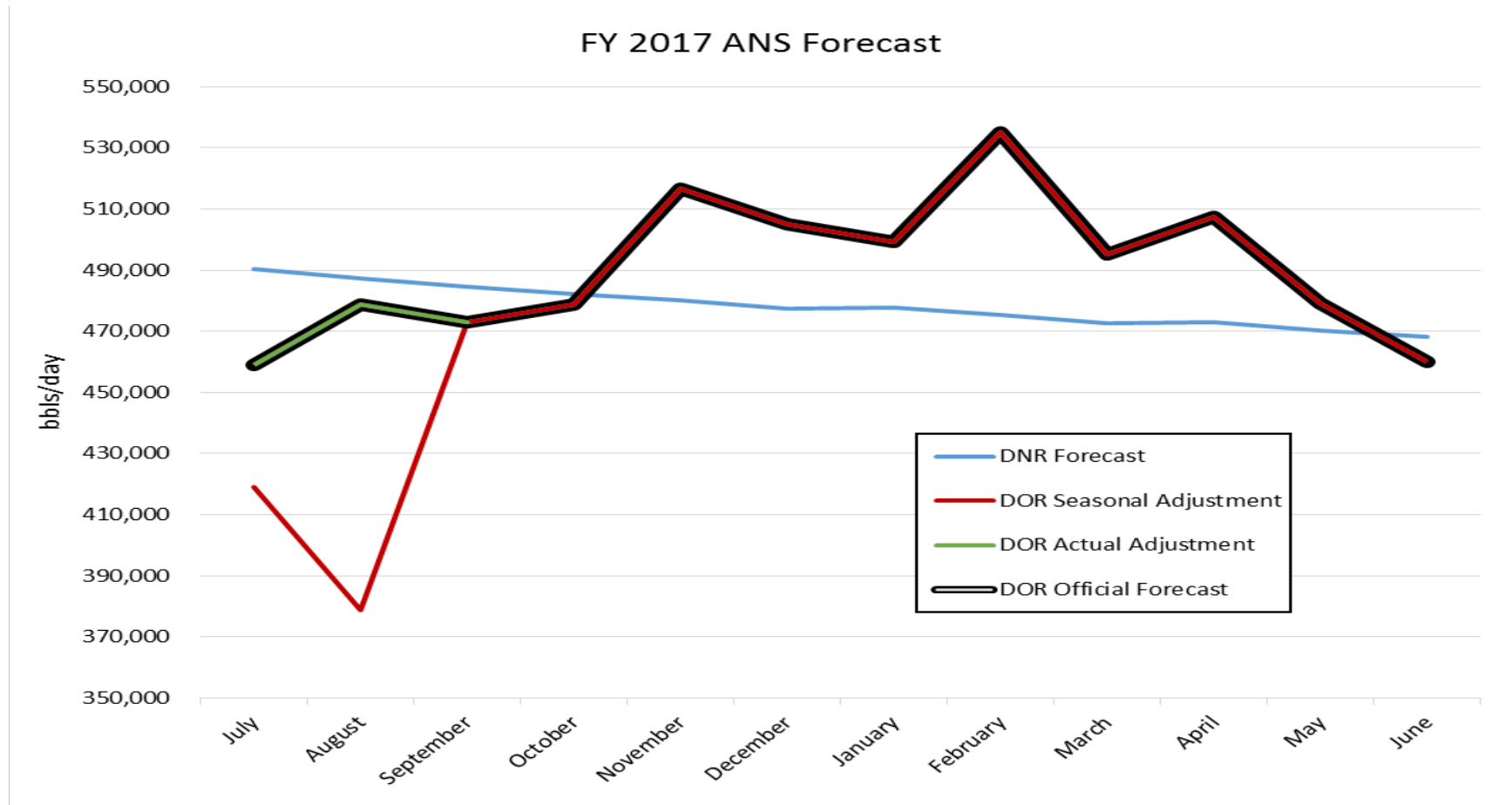
	(bbls/day)									
Fiscal Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Low Case (P90)	485,437	443,130	420,468	399,452	380,773	362,396	342,498	323,061	304,545	288,085
Decline Rate	-6%	-9%	-5%	-5%	-5%	-5%	-5%	-6%	-6%	-5%
Official Forecast (P50)	490,289	455,550	442,100	428,564	413,481	398,226	380,352	363,447	345,867	330,973
Decline Rate	-5%	-7%	-3%	-3%	-4%	-4%	-4%	-4%	-5%	-4%
High Case (P10)	495,504	467,715	464,292	457,841	446,209	432,753	417,186	402,099	385,324	371,733
Decline Rate	-4%	-6%	-1%	-1%	-3%	-3%	-4%	-4%	-4%	-4%
GVR Eligible under Official Forecast	41,771	40,051	43,025	48,430	50,465	49,255	29,116	11,208	4,697	-
% GVR Eligible under Official Forecast	9%	9%	10%	11%	12%	12%	8%	3%	1%	0%

PRODUCTION FORECAST: ANS Comparison to Prior Forecast



Forecasting Methods: Seasonality

- DOR adds seasonality to the DNR forecast and replaces initial months with actual values.



Source: Department of Revenue

THANK YOU

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