

*DRAFT*

**DATE:** June 22, 2017

**TO:** Richard Cardinale, Acting Assistant Secretary for Land and Minerals Management  
Scott Cameron, Acting Assistant Secretary for Water and Science

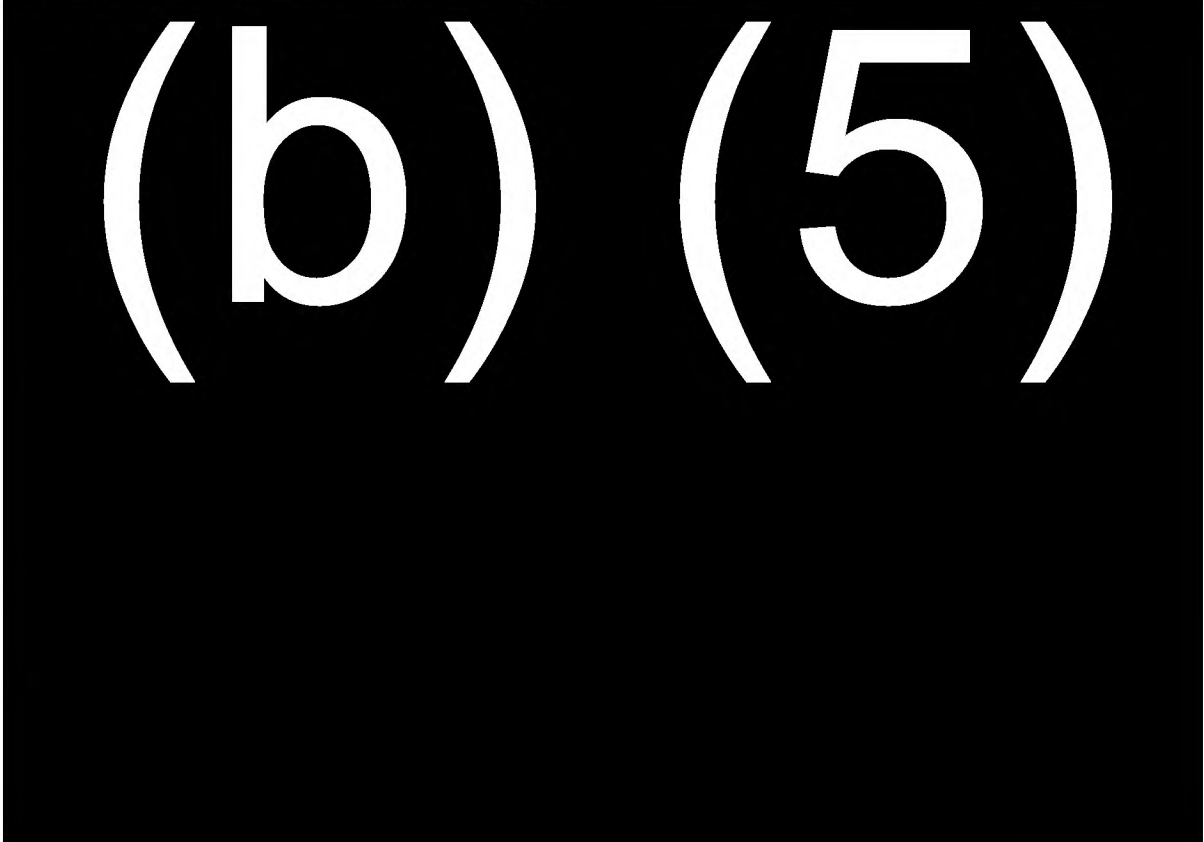
**FROM:** William Werkheiser, Acting Director – United States Geological Survey (USGS)

**SUBJECT:** Joint Plan (USGS-BLM-BOEM) Response for Resource Assessment to Secretarial Order No. 3352

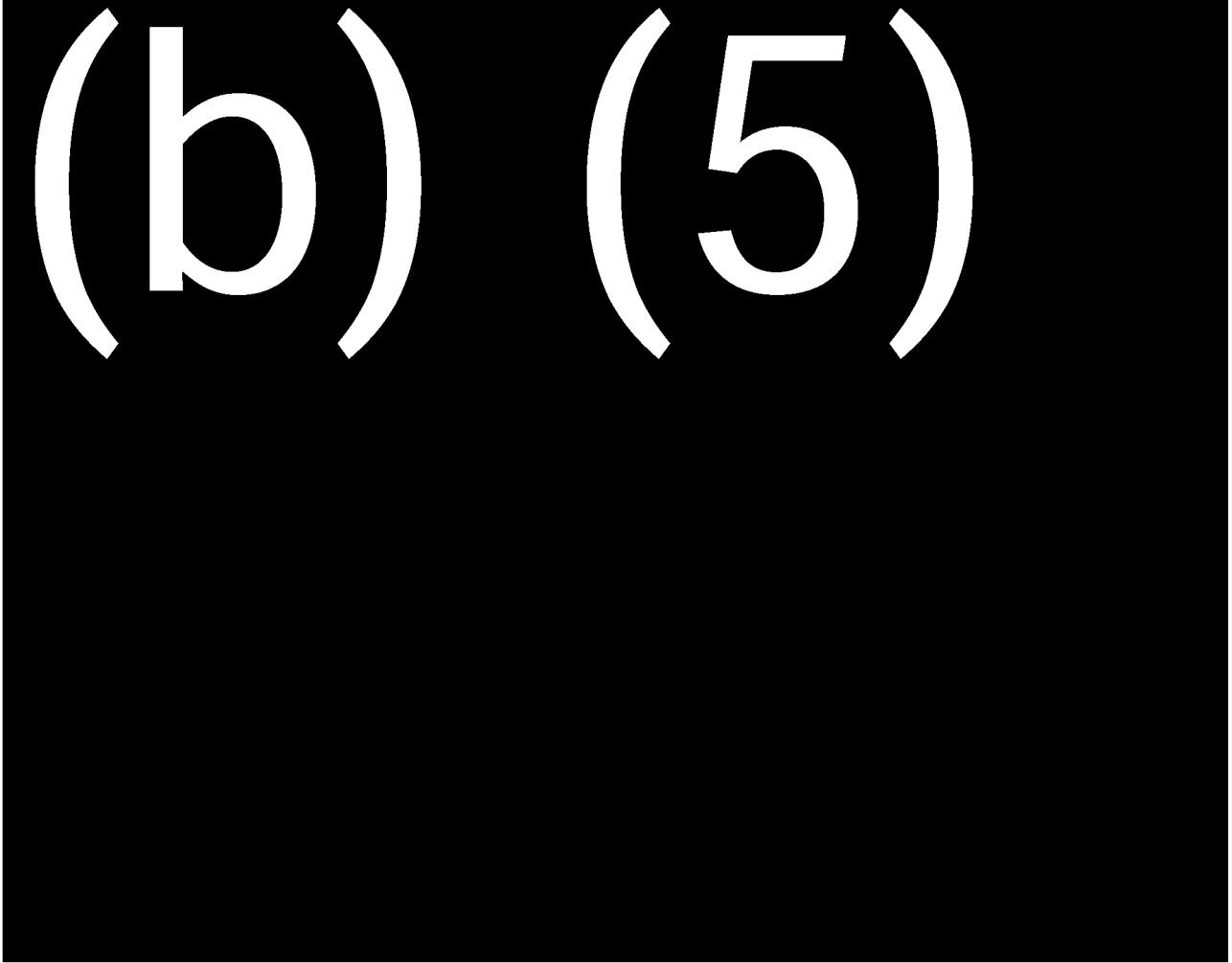
**EXECUTIVE SUMMARY**

The purpose of this memo is to respond to Secretarial Order No. 3352, which aims to jump-start Alaskan energy production on the North Slope of Alaska. Specifically, this memo discusses plans by which current resource assessments in the National Petroleum Reserve-Alaska (NPR-A) and the Section 1002 Area of the Arctic National Wildlife Refuge will be updated. This memo includes information from USGS, BLM, and BOEM.

The proposed resource assessments will be conducted using established USGS protocol and as transparently as permitted by non-disclosure agreements related to proprietary data. This work will be coordinated with and will involve Alaska technical agencies including the Division of Geological and Geophysical Services, the Division of Oil and Gas, and the Alaska Oil and Gas Conservations Commission. The assessments include the following:

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**BACKGROUND**



**PROPOSED ASSESSMENTS**



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**Table 1: Cost information, Alaska North Slope Assessment Options (numbers in millions of dollars)**

<b>Assessment</b>	<b>FY17</b>	<b>FY18</b>	<b>FY19</b>	<b>FY20</b>	<b>FY21</b>	<b>FY22</b>	<b>Total</b>
National Petroleum Reserve – Alaska	1.600	0.950	0.000	0.000	0.000	0.000	<b>2.550</b>
Arctic National Wildlife Refuge							
ANWR – Option 1	0.000	0.000	0.000	0.000	0.000	0.000	<b>0.000</b>
ANWR – Option 2	1.350	2.550	0.950	0.000	0.000	0.000	<b>4.850</b>
ANWR – Option 3	0.000	0.375	2.250	0.950	0.000	0.000	<b>3.575</b>
Central North Slope	0.000	0.000	3.250	2.200	0.950	0.000	<b>6.400</b>
West of NPRA	0.000	0.000	0.000	1.250	2.400	0.750	<b>4.400</b>

Note: Totals not provided due to range of assessment scenarios provided

**National Petroleum Reserve – Alaska (NPRA)**

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(b) (5)

**Figure 2: Estimated completion timeline for NPRA Resource Assessment**

Task	CY 2017				CY 2018				CY 2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Review technical data and interpret seismic data		■	■									
Refine interpretations of seismic and well data			■	■								
Define AUs; prepare for public review & assessment				■								
Conduct public review meetings												
Conduct assessment												
Prepare release document (fact sheet)												
Conduct technical and editorial review												
Release assessment												
Hold briefings for Admin., Congress, State et al.												

**Arctic National Wildlife Refuge 1002 Area**

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**Figure 3: Estimated completion timeline for ANWR Resource Assessment (Scenario 2)**

Task	CY 2017				CY 2018				CY 2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Seismic data reprocessing (existing 2-D data) *				█	█	█						
Review technical data and interpret seismic data					█	█	█					
Refine interpretations of seismic and well data							█	█				
Define AUs, prepare for public review & assessment							█	█				
Conduct public review meetings								█				
Conduct assessment									█			
Prepare release document (fact sheet)										█		
Conduct technical and editorial review											█	
Release assessment												█
Hold briefings for Admin., Congress, State, et al.												█

\* USGS does not procure reprocessed vintage 2-D seismic data, but provides geological and geophysical advice to seismic vendor

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**Figure 4: Estimated completion timeline for ANWR Resource Assessment (Scenario 3)**

Task	CY 2017				CY 2018				CY 2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
3-D seismic survey and processing of data *				[Orange bar spanning 4Q 2017, 1Q 2018, 2Q 2018, 3Q 2018]								
Review technical data and interpret seismic data						[Blue bar spanning 3Q 2018, 4Q 2018, 1Q 2019]						
Refine interpretations of seismic and well data									[Blue bar spanning 1Q 2019, 2Q 2019]			
Define AUs; prepare for public review & assessment										[Blue bar spanning 2Q 2019, 3Q 2019]		
Conduct public review meetings											[Blue bar spanning 3Q 2019, 4Q 2019]	
Conduct assessment												[Blue bar in 4Q 2019]
Prepare release document (fact sheet)												[Blue bar in 4Q 2019]
Conduct technical and editorial review												[Blue bar in 4Q 2019]
Release assessment												[Blue bar in 4Q 2019]
Hold briefings for Admin., Congress, State, et al.												[Blue bar in 4Q 2019]

\* USGS plays no role in designing or acquiring a 3-D seismic survey

**Central North Slope**

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West of NPRA

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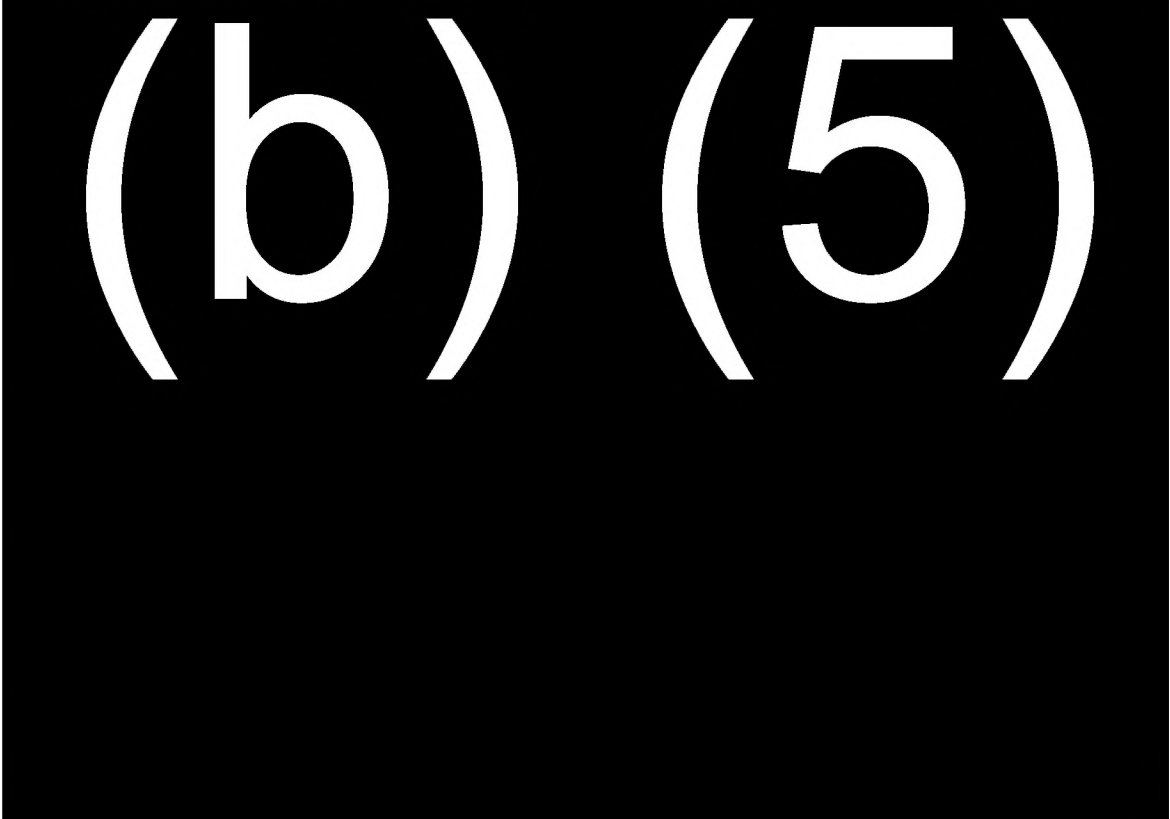
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**BACKGROUND**

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**PROPOSED ASSESSMENTS**

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Figure 2: Estimated completion timeline for NPRA Resource Assessment

Task	CY 2017				CY 2018				CY 2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Review technical data and interpret seismic data	■	■										
Refine interpretations of seismic and well data		■	■									
Define AUs; prepare for public review & assessment			■	■								
Conduct public review meetings				■								
Conduct assessment				■								
Prepare release document (fact sheet)				■								
Conduct technical and editorial review				■								
Release assessment				■								
Hold briefings for Admin., Congress, State et al.				■								

Alaska National Wildlife Refuge 1002 Area

(b) (5)

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**Figure 3: Estimated completion timeline for ANWR Resource Assessment (Scenario 2)**

Task	CY 2017				CY 2018				CY 2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
Seismic data reprocessing (existing 2-D data) *				█	█	█						
Review technical data and interpret seismic data					█	█	█					
Refine interpretations of seismic and well data							█	█				
Define AUs; prepare for public review & assessment							█	█				
Conduct public review meetings								█				
Conduct assessment									█			
Prepare release document (fact sheet)										█		
Conduct technical and editorial review											█	
Release assessment												█
Hold briefings for Admin., Congress, State, et al.												█

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**Figure 4: Estimated completion timeline for ANWR Resource Assessment (Scenario 3)**

Task	CY 2017				CY 2018				CY 2019			
	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
3-D seismic survey and processing of data *				[Orange bar]								
Review technical data and interpret seismic data						[Blue bar]						
Refine interpretations of seismic and well data									[Blue bar]			
Define AUs; prepare for public review & assessment										[Blue bar]		
Conduct public review meetings											[Blue bar]	
Conduct assessment												[Blue bar]
Prepare release document (fact sheet)												[Blue bar]
Conduct technical and editorial review												[Blue bar]
Release assessment												[Blue bar]
Hold briefings for Admin., Congress, State, et al.												[Blue bar]

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**Central North Slope**

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West of NPRA

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