

Michael C. Creamer (ISB No. 4030)  
Givens Pursley LLP  
601 W. Bannock St.  
Boise, ID 83702  
Telephone: (208) 388-1200  
Facsimile: (208) 388-1300  
[mcc@givenspursley.com](mailto:mcc@givenspursley.com)

RECEIVED  
2018 NOV 15 AM 10:26  
IDAHO PUBLIC  
UTILITIES COMMISSION

*Attorneys for SUEZ Water Idaho Inc.*

**BEFORE THE IDAHO PUBLIC UTILITIES COMMISSION**

IN THE MATTER OF THE JOINT  
APPLICATION OF EAGLE WATER  
COMPANY, INC. AND SUEZ WATER  
IDAHO INC. FOR APPROVAL OF SALE  
AND ACQUISITION OF EAGLE WATER  
COMPANY, INC. ASSETS BY SUEZ  
WATER IDAHO INC. AND AMENDMENT  
OF CERTIFICATE OF PUBLIC  
CONVENIENCE AND NECESSITY NO.  
143, AND APPROVAL OF RATES AND  
CHARGES

Case Nos. SUZ-W-18-02  
EAG-W-18-01

**DIRECT TESTIMONY OF CATHY COOPER**

**ON BEHALF OF SUEZ WATER IDAHO INC.**

November 2018

1 **Q. Please state your name and title.**

2 A. My name is Cathy Cooper, P.E.. I am the Director of Engineering for SUEZ  
3 Water Idaho Inc.

4 **Q. Please summarize your professional experience and educational background.**

5 A. I am a graduate of the University of Colorado at Boulder with a Bachelor of  
6 Science in Civil Engineering. I completed my Master of Science in Civil  
7 Engineering at the University of Washington in Seattle. I have been a licensed  
8 Professional Engineer in the State of Idaho since 1999.

9 I have been employed as a civil engineer for 24 years. My work experience  
10 includes 22 years at Boise area consulting firms where I focused my work on  
11 water system engineering. My experience includes preparing detailed hydraulic  
12 calculations; designs for storage tanks, pump stations, pressure reducing stations,  
13 pipelines, and well houses; water system Master Facility Plans; hydraulic models;  
14 and project cost estimates. I was an Owner and the Managing Partner at my last  
15 consulting firm.

16 I have been employed by SUEZ since July 2016 as the Director of Engineering in  
17 Idaho.

18 **Q. What is the purpose of your testimony?**

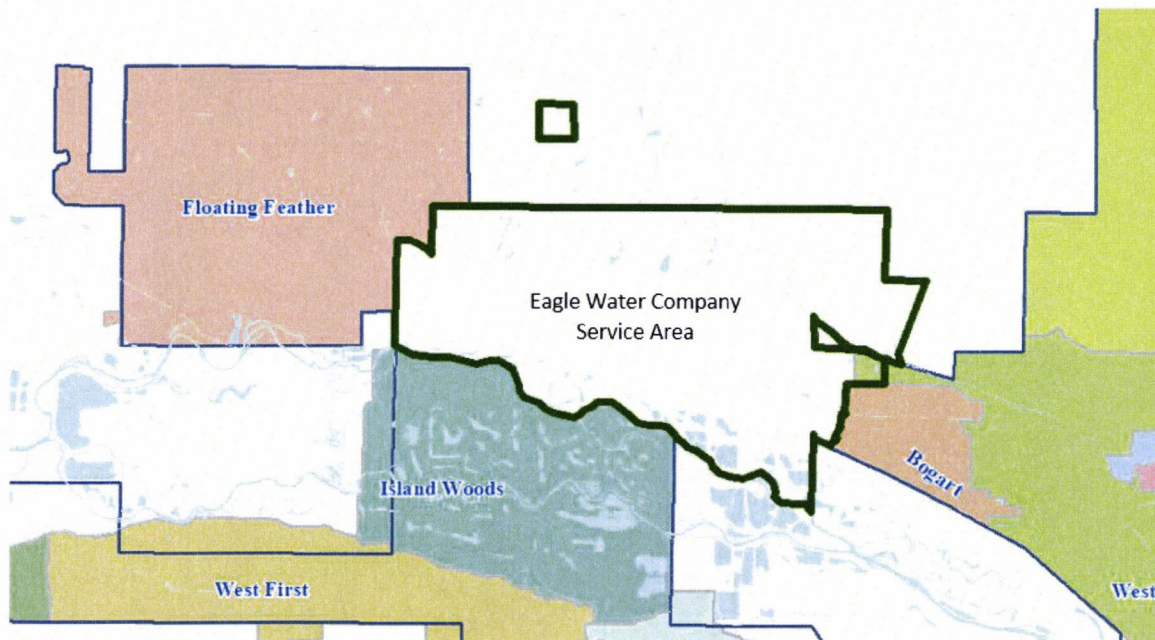
19 A. My testimony provides information on future source of supply needs for SUEZ  
20 customers, SUEZ's plans for where that source will come from, and the projected  
21 capital savings to SUEZ customers as a result of planned near-term capital  
22 expenditures that could be avoided with the proposed acquisition of Eagle Water

1 assets. My testimony also discusses the benefits I believe Eagle Water customers  
2 would realize from the proposed Eagle Water asset purchase.

3 From an engineering and operational standpoint, there are significant efficiencies  
4 to be gained for all customers in sharing sources of supply, redundant sources,  
5 and storage tanks as I will further describe below.

6 **Q. Describe the location of Eagle Water Company in relation to the SUEZ water  
7 system.**

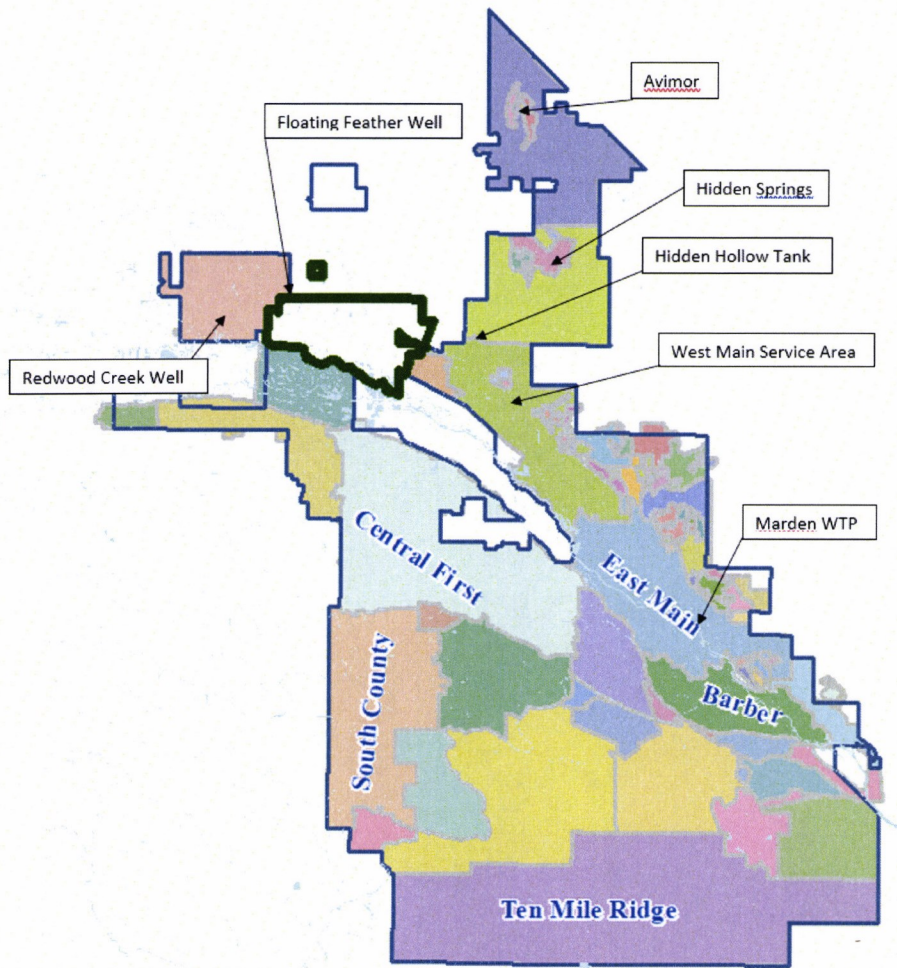
8 A. The following map shows SUEZ boundaries and pressure zones in the northwest  
9 portion of the SUEZ system, with the Eagle Water Company boundary outlined in  
10 green. You can see that Eagle Water Company and the SUEZ system share  
11 boundaries on three sides. The relatively small area depicted north of Eagle  
12 Water's main service area and east of SUEZ's Floating Feather zone is a small  
13 development that also is served by Eagle Water with its existing system.



14  
15

1   **Q.    Describe existing SUEZ facilities in the area.**

2    A.    The following map shows SUEZ’s primary sources of supply and facilities in the  
3       northwest portion of its system. This area is supplied primarily by SUEZ’s  
4       Floating Feather well and Marden Water Treatment Plant (WTP). These main  
5       sources fill the Hidden Hollow Tank, which provides storage for pumping north  
6       to the large developments of Hidden Springs and Avimor. The Hidden Hollow  
7       Tank also provides necessary fire protection and peaking supplies to SUEZ’s  
8       West Main Service Area. SUEZ’s Redwood Creek well can provide  
9       approximately fifty-five percent redundancy to the Floating Feather well through  
10      a booster pump located at the Floating Feather well house.



1

2 **Q. Please describe existing Eagle Water Company Facilities.**

3 A. Eagle Water has seven well facilities and two booster pump stations. There are  
 4 no gravity storage tanks existing in the Eagle Water system. Eagle Water  
 5 provides all demands (maximum day, peaking, and fire flows) directly from their  
 6 wells. A map depicting the Eagle Water service area and key facilities is attached  
 7 as Attachment 1 to SUEZ's and Eagle Water's Joint Application.

8 I have performed an engineering and hydrogeologic analysis of the Eagle Water  
 9 system for SUEZ, and believe there are currently several regulatory shortfalls

1 related to pumping capacity in the Eagle Water system that should be addressed in  
2 the near-term. It appears that Eagle Water does not currently meet Idaho  
3 Department of Environmental Quality (IDEQ) requirements for redundant non-  
4 fire pumping capacity (IDAPA 58.01.08 Section 501.17), redundant fire pumping  
5 capacity (IDAPA 58.01.08 Section 501.18), and emergency operation (IDAPA  
6 58.01.08 Section 501.07). This means that with its largest well out of service the  
7 Eagle Water system would fall short on peak hour flows or fire protection flows.  
8 Under a power outage scenario, Eagle Water also would not be able to meet  
9 average day plus fire flow demands.

10 Also, my analysis of Eagle Water's water rights indicates that Eagle Water's  
11 current portfolio of municipal water rights does not include sufficient authorized  
12 flow rate to meet the system's peak hour demands.

13 Based on the above-described analysis and conclusions, the Eagle Water system is  
14 in need of near-term upgrades and investment regardless of whether the proposed  
15 asset purchase is approved by the Commission and consummated by the parties.

16 If the asset purchase is approved, SUEZ proposes facility and permitting  
17 improvements described below that would address these identified deficiencies.

18 **Q. Describe the benefits to existing SUEZ customers of acquiring Eagle Water**  
19 **Company assets.**

20 A. As part of SUEZ's ongoing planning and budgeting process, it has near-term  
21 plans to increase the source of supply available to the northwest portion of its  
22 system. An acquisition of the Eagle Water assets would provide additional source

1 of supply at an estimated capital cost avoidance of approximately \$11.7M for  
2 SUEZ customers.

3 Absent the Eagle Water acquisition, SUEZ has planned several major projects to  
4 increase the amount of supply available to the northwest area of the SUEZ  
5 system. The first project would be completion of the Redwood Creek Pipeline  
6 and an upgrade to the Redwood Creek well pump capacity. SUEZ's existing  
7 Redwood Creek Well can produce approximately 3,000 gpm. It currently  
8 produces around 600 gpm to serve the local area in the Floating Feather pressure  
9 zone. Completing the Redwood Creek Pipeline will allow the available excess  
10 water from Redwood Creek well to be transmitted to Hidden Hollow Tank where  
11 it is needed. The second planned project involves improvements to SUEZ's  
12 existing Island Woods #1 and #2 well facilities (located south of the Eagle Water  
13 service area, across the Boise River) and completion of a pipeline across the Boise  
14 River to connect the Island Woods wells to the Redwood Creek Pipeline. The  
15 Island Woods Wells can currently each produce about 800 gpm, but with  
16 upgrades could produce approximately 1,500 gpm each. Upgrading these wells  
17 and piping them into the Redwood Creek Pipeline will allow for another 1,500  
18 gpm total to be transmitted to Hidden Hollow Tank. The Island Woods upgrade  
19 project will also require construction of a new 2 million gallon tank and  
20 associated pump station to provide storage for pumping and keep the Island  
21 Woods pressure zone at acceptable service pressures. We anticipate that the 2  
22 million gallon storage tank would be located northeast of the intersection of Old  
23 Horseshoe Bend Road and Floating Feather Road. The pump station would be

1 located near the intersection of Old Horseshoe Bend Road and Hill Road. The  
 2 third project is expansion of SUEZ's Marden Water Treatment Plant (WTP) by 6  
 3 million gallons per day. These three improvements will provide approximately  
 4 12.5 MGD of additional and redundant supply to the SUEZ system that our  
 5 planning projections indicate will be needed by 2022. Absent the Eagle Water  
 6 acquisition, they were budgeted to occur between 2018 and 2022 at a total cost of  
 7 approximately \$41.8M and are summarized in the following table.

SUEZ SUPPLY INVESTMENTS ABSENT EAGLE WATER ACQUISITION						
MGD	Facility Improvement	2018	2019	2020	2021	2022
2.16	Redwood Creek Pipeline	\$ 2,032	\$ 9,990			
2.16	Replace Redwood Creek Well Pump with 3000 gpm Pump			\$ 571		
0.00	Optimist Booster Pump Station / New 2 MG Tank				\$ 2,894	\$ 2,894
2.16	Island Woods Connection				\$ 2,177	\$ 2,177
6.00	Marden Expansion (6 MGD, no DAF), includes Main Enlargements to move the water away from Marden: Marden and Mobley Main Enlargement (2300' of 36" pipe), and Lewis / 6th Street Main Enlargement (11,770' of 24" Pipe)			\$ 2,465	\$ 8,618	\$ 8,025
	Cumulative Cost (in 000's)	\$ 2,032	\$ 12,022	\$ 15,058	\$ 28,747	\$ 41,844
	Cumulative MGD	-	2.2	4.3	4.3	12.5
	Cost per MGD		\$ 5,565	\$ 3,485	\$ 6,654	\$ 3,353

8  
 9 The acquisition of Eagle Water assets presents an alternative approach where  
 10 SUEZ customers can realize the same benefits of additional source of supply for  
 11 less cost. Planned projects in conjunction with the Eagle Water acquisition  
 12 include the following. The first priority still would be completion of the  
 13 Redwood Creek Pipeline and an upgrade to the Redwood Creek well pump  
 14 capacity. The Redwood Creek Pipeline is an important project with or without  
 15 acquisition of Eagle Water because it enables use of the full capacity of the  
 16 existing SUEZ Redwood Creek well and will serve as a tie-in point for water from  
 17 other sources to be transmitted to Hidden Hollow Tank. The second project  
 18 would be the interconnection of Eagle Water Wells 6 and 8 with SUEZ's existing



1 Hidden Hollow tank. This would allow the tank to provide immediate redundant  
2 fire supplies to Eagle Water customers and use of Wells 6 and 8 to fill Hidden  
3 Hollow Tank. The third project would be construction of a 2 million gallon  
4 storage tank to serve Eagle Water customers with peaking and fire storage, and  
5 rehabilitation of Eagle Water well 1, which will allow Maximum Day Demand for  
6 Eagle Water Customers to be provided within the pressure zone. These  
7 improvements would be scheduled for 2018 to 2021 if the acquisition is approved.  
8 SUEZ's total costs for improvements both to bring the Eagle Water system up to  
9 appropriate regulatory standards and achieve SUEZ's additional supply objective  
10 of 12.5 MGD would be approximately \$30.1M, including the \$10M purchase  
11 price for the Eagle Water assets. This represents an avoided capital cost to SUEZ  
12 customers of approximately \$11.7M (\$41.8M less \$30.1M). In addition, with  
13 acquisition of Eagle Water, several existing sources will be preserved for future  
14 supply expansion including SUEZ' Island Woods wells 1 and 2, the Marden WTP  
15 expansion, and Eagle Water wells 2 and 3 (future re-drilling). These avoided and  
16 deferred improvements will benefit both Eagle Water and SUEZ customers.

<b>SUEZ SUPPLY INVESTMENTS WITH EAGLE WATER ACQUISITION</b>					
<b>MGD</b>	<b>Facility Improvement</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>
2.16	Redwood Creek Pipeline	\$ 2,032	\$ 9,990		
2.16	Replace Redwood Creek Well Pump with 3000 gpm Pump/higher TDH			\$ 769	
0.00	EWC Acquisition Price		\$ 10,000		
0.00	Water Right Transfers / APODS to allow full capacity pumping from EWC Wells		\$ 56		
3.24	New Pump EWC Well 8, PRV, connect to RWC Pipeline			\$ 1,043	
3.60	New Pump Well 6, PRV, connect to RWC Pipeline				\$ 1,110
1.44	New 2 MG Tank / Rehab Well 1 (1000 gpm additional available from Well 6)			\$ 2,006	\$ 3,135
	Cumulative Dollars	\$ 2,032	\$ 22,078	\$ 25,896	\$ 30,141
	Cumulative Supply Gained	0.0	2.2	7.6	12.6
	Cost per MGD		\$ 10,221	\$ 3,425	\$ 2,392

17

1 SUMMARY OF AVOIDED CAPITAL COSTS

2 Absent the acquisition of Eagle Water assets, SUEZ plans to invest approximately  
3 \$41.8M to develop and transmit approximately 12.5 million gallons per day of  
4 additional and redundant source of supply. With the acquisition of Eagle Water  
5 assets, SUEZ would need to invest only \$30.1M (including the \$10M Eagle Water  
6 acquisition price) to develop the same amount of supply. These same supply  
7 improvements would also bring Eagle Water into compliance with regulatory  
8 requirements. This is a capital cost avoidance of \$11.7M. SUEZ has estimated  
9 that it could pay up to \$21.7M for the Eagle Water assets and still break even  
10 from a capital investment standpoint related to supply.

11 Because the projected capital cost avoidance for SUEZ customers with the  
12 acquisition and integration of the Eagle Water assets exceeds the \$10M purchase  
13 price, SUEZ is requesting that the Commission allow the full acquisition price to  
14 be recovered in rates.

15 **Q. Describe the benefit to existing Eagle Water Company customers of SUEZ**  
16 **acquiring Eagle Water assets.**

17 A. SUEZ believes there will be substantial tangible benefits to Eagle Water  
18 customers from this acquisition. Portions of the supply projects previously  
19 described will directly benefit Eagle Water customers. In addition, other projects  
20 such as the addition of SCADA Controls, targeted pipeline upgrades, and change  
21 outs to AMI meters would be completed. These improvements that will directly  
22 benefit Eagle Water customers are detailed in the following table with estimated  
23 costs.

1           The planned capital improvements that will directly benefit Eagle Water  
2           customers have been used in the Eagle Water rate calculations presented in Ms.  
3           Cary's testimony.  
4           In addition, there are other benefits for Eagle Water customers outside of capital  
5           improvements that are discussed in the testimony of Mr. Thompson.

PLANNED CAPITAL IMPROVEMENTS THAT WILL BENEFIT EAGLE WATER CUSTOMERS				
Project Title	Costs (in 000's)			Benefit Summary
	2019	2020	2021	
Add chlorination at Wells 2, 4, 6, 7, 8	\$ 56			Chlorine residual in distribution system, protection against contamination risk. \$10k plus OH per site.
SCADA at each Facility (Wells 2, 4, 6, 7, 8, 2 boosters), control room and associated hardware and software	\$ 532			SCADA controls at each facility will allow for 24-hour monitoring of system operations. Includes \$250 for a control room, database, historian, radio path survey, etc if Eagle Water constructed the improvement (no OH on this portion). \$35k per site, \$5k contingency, plus OH.
Meter and Service Replacements (2,000 @ \$1500 each)	\$1,129	\$1,129	\$1,129	Half of EWC meters - fix problematic meter locations, move into right-of-way, lessen depth for safety and access. Install AMI meters. The benefits of AMI meters include continuous reporting, with customers able to see water usage through the Suez website, leak detection, and backflow detection.
Meter Replacement with AMI (2000 @ \$388)	\$ 454	\$ 438		Half of EWC meters - Install AMI meters in existing meter boxes. The benefits of AMI meters include continuous reporting, with customers able to see water usage through the Suez website, leak detection, and backflow detection. Includes \$16k for two repeaters if Eagle Water constructed the improvements, no OH on this portion.
Water Right Transfers to add APODS to Eagle Water and SUEZ Rights	\$ 56			These transfers would allow the two delivery systems to be integrated in the future, enhancing the reliability and flexibility of both. In addition, shared Eagle rights and SUEZ rights would fill the current shortfall in Eagle Water rights to meet peak demands. These transfers would eliminate the need for Eagle Water to appropriate new water rights to fill its current shortfall.
Map Eagle Water System into GIS and create Hydraulic Model	\$ 27			Provides the benefit of crews being able to rapidly locate buried infrastructure. Inclusion in the model will allow for system optimization and targeted pipeline replacement planning. This will also include the Eagle Water facilities into Aquadvanced Energy, an energy-saving system operations platform.
PRV at Well 8		\$ 528		PRV and portion of piping will interconnect the Eagle Water system with the Suez system. Will provide access to fire storage volume in Hidden Hollow Tank for Eagle Water customers. Benefit of supply and storage from Suez system.
PRV at Well 6			\$ 341	PRV and portion of piping will interconnect the Eagle Water system with the Suez system. Will provide access to fire storage volume in Hidden Hollow Tank for Eagle Water customers. Benefit of supply and storage from Suez system.
Redwood Creek Pipeline		\$2,133		The Redwood Creek pipeline will be the interconnection between the Eagle Water system and the Suez system. This pipeline being in place will provide Eagle Water customers with the benefit of being able to access source and storage from the Suez system. The benefit is calculated on making up the redundancy shortfall in fireflow for Eagle Water (1375 gpm). This would also cover the shortage in peak hour redundancy (1175 gpm) and the emergency standby shortage (429 gpm). It won't be available to EWC customers until the PRV at Well 8 is in place, which is why it has been included in 2020. Cost calculated as a portion of the total pipeline cost, 1375 gpm / 7750 gpm (ultimate pipeline capacity with 1000 gpm being used locally in Floating Feather and Eagle Water area to support current customers and growth through 2021).
2 MG Tank		\$2,006	\$2,006	Will bring Eagle Water into compliance with IDEQ peak hour and fire flow supply and redundancy requirements
Pipeline Replacements (1% per year)	\$ 305	\$ 305	\$ 305	0.6 miles of pipeline replacement per year. First years will target undersized lines or lines at higher risk of breakage.
Safety and Security Improvements	\$ 28	\$ 28	\$ 28	Arcflash analysis and improvements, eyewash stations, fall protection at facility sites.
Production Roll-Up Work	\$ 113	\$ 141	\$ 141	Pump replacements, HVAC, production meter replacements, pumping facility upgrades, landscaping, sampling stations, generator replacements, add water level monitoring in wells, etc
<b>Totals</b>	<b>\$2,700</b>	<b>\$6,708</b>	<b>\$3,950</b>	<b>\$13,358</b>
The improvements in this table have overheads added except for portions of improvements that would be completed if Eagle Water were making the improvements. For example, with respect to needed SCADA control for the Eagle Water system, SUEZ already has a control room, servers, database, and historian computers to support the addition of SCADA at the Eagle Water facilities. Eagle Water does not have a control room or associated amenities and would have to purchase them to implement functional SCADA control if Eagle Water were constructing the improvement itself. The Eagle Water portion of the costs does not have any overheads included.				

1 **Q. Do you believe the acquisition of Eagle Water by SUEZ is in the public**  
2 **interest?**

3 A. Yes. SUEZ has the available capital resources to make needed improvements to  
4 the Eagle Water system. The Company will complete improvements that will  
5 bring the Eagle Water system into compliance with IDEQ and IDWR  
6 requirements. Eagle Water customers will benefit from sharing sources of supply  
7 and storage with SUEZ customers in addition to the enhanced monitoring and  
8 response that come from a water system having amenities such as a SCADA  
9 system and AMI meters. At the same time, SUEZ customers will avoid  
10 substantial capital costs and still obtain the sources of supply that are needed.

11 **Q. Does this conclude your testimony?**

12 A. Yes.

13